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ON THE USE OF BORDEAUX MIXTURE AS A FUNGICIDE.

BY PROF. S. C. MASON.

MUCH as has been written on the spraying of plants for the prevention of fungous diseases, there still exists much confusion both as to the nature of such diseases and the way in which they may be treated.

Stated in very general terms, the fungous diseases of plants are microscopic vegetable organisms which grow within the tissues of the plant affected, or host plant, destroying its cells. They propagate by means of spores, which at the right time are discharged from the surface of the diseased parts. Some of these spores may retain their vitality for a considerable time, even over winter. In order that these spores may germinate, they must find lodgement on the leaves or other tender parts of the host plants where, with sufficient moisture, their growing parts penetrate the openings in the epidermis.

It is found that if these spores are brought in contact with certain mineral substances, notably the soluble compounds of copper, or even metallic copper itself in the presence of water, their germination is prevented. Copper sulphate, or "blue stone," is the most effective form in which copper can be used. It is found very beneficial in orchards infested with the scab and other diseases; vineyards with mildew and black rot; to spray trees and vines, and even the trellis, with a solution of one pound of copper sulphate in twenty or twenty-five gallons of water. This must be done before the buds swell in the spring, when the copper comes in contact with many of the fungous spores that have passed the winter and destroys them. Later, after the leaves have opened, this solution is injurious to the plants, and Bordeaux mixture must be substituted. This is a preparation in which the acid properties of the copper sulphate are neutralized by mixing with lime in the form of a thick whitewash.

The history of this mixture is a curious one. We are told that in the neighborhood of the city of Gironde in France, it was common to sprinkle the grape vines along the roadsides with a thick mixture of copper sulphate and lime, which gave them a poisoned appearance and so prevented tramps and school boys stealing the fruit. In 1882, when the mildew was ravaging the vines of that region, it was noticed that these sprinkled vines escaped, and the attention of Professor Millardet of the school of sciences in Bordeaux being called to the fact, he began the experiments which resulted in what is now known as the Bordeaux mixture. While the component parts of this have remained the same, the exact proportions and methods of preparation have been the subjects of much experimentation, notably by the New York Experiment Stations and by Waite, Fairchild, and Swingle under the direction of Dr. Galloway of the Division of Vegetable Physiology and Pathology, United States Department of Agriculture.

The formula now generally recommended is as follows:—

Water.....50 gallons
Copper Sulphate6 pounds
Unslacked lime.....4 pounds
Dissolve the copper sulphate in twenty-five gallons of water by tying it in any coarse cloth and suspending it in the top of the water. Being heavier, it will dissolve out very quickly, while if thrown in to go to the bottom it takes a long time.

The lime, which should be hard and free from air slacking, is slacked as for mortar and thinned to a volume of twenty-five gallons. It is a good plan to pour this through a wire sieve to free it from all coarse particles. When cold, pour the two mixtures together, afterwards stirring for several minutes. To be sure that the copper sulphate is now neutralized by the lime so as not to be injurious to the foliage, several tests are used. One recommended by Mr. Swingle is to hold a bright knife blade in the mixture for a minute or two, and if there is still an excess of copper a deposit of copper will appear on the blade, when more lime should be added till no such deposit forms.

The potassium ferro-cyanide test is very delicate, and is as follows: Procure from the druggist a little yellow prussiate of potash, the name by which the above chemical is known to the druggist, and make a solution in water of about one to twenty, in a convenient vial. A little of the well-stirred Bordeaux mixture is dipped out, and on dropping a little of the potassium ferro-cyanide into it, if a liver-colored precipitate forms there is an excess of copper, and lime

should be added till no such color appears, always remembering to stir thoroughly. At this Station, we have found a neutral litmus paper the most convenient test. This paper is of a dull violet color, and on immersing a strip of it in the mixture, if copper is in excess it is turned bright red. When there is an excess of lime, the paper will turn blue and the mixture may be considered all right.

There is seldom any trouble, however, with the formula as given made with the limes we get in Kansas. As lime slacks very quickly if kept on hand, it is usually found convenient to slack a quantity at once and "run it off" as masons do into a barrel or box set in the ground. If well covered, it will keep all summer as a smooth "putty" ready for use.

The copper sulphate is also readily prepared in stock solution.

We usually weigh out a certain number of pounds of the crystals and dissolve by suspending in a cask containing an equal number of gallons of water. Then when wanted, six gallons of this poured in a barrel with eighteen or twenty gallons of water give us the first part. About a gallon of the lime putty reduced to a thin whitewash of fifteen or twenty gallons is poured in and stirred rapidly, testing from time to time till the litmus paper turns blue instead of red, showing no acid present. Then add what water is needed to bring the quantity to fifty gallons. To any who wish to provide themselves with this litmus paper test, I will say that for ten cents in stamps sent to the Horticultural office I will send a supply of paper sufficient for a season's work.

Every fruit grower needs a good spraying outfit as much as he needs a plow. Do not put up with some of the cheap outfits offered. The success of spraying consists in a great measure in spraying the plants, not sprinkling them. Buy, then, a good force pump, hose, nozzle, and lance that will enable you to do the work well. The whole need not cost more than ten dollars for the average orchard. My own twelve-dollar rig went around the neighborhood last year and sprayed a half dozen small orchards twice each.

If four ounces of Paris green are added to each fifty gallons of Bordeaux mixture at the two sprayings just after apple blossoms fall, both the codling moth and the fungous diseases will be reached.

Our experimental vineyard of many varieties has been kept almost free from disease by spraying once with copper sulphate and water before buds open, and with Bordeaux mixture when the leaves are full open, and once in ten days or two weeks till fruit is nearly grown.

One year, when this was omitted as a check, many of the hybrid varieties were almost defoliated, by mildew, and were wholly unable to perfect their fruit, while black rot destroyed others. Of course, in such a miscellaneous collection, the tendency to disease is greater than in vineyards of a few of the more healthy sorts, but this only more fully proves the value of the treatment.

Space will not admit of describing all the uses of Bordeaux mixture, but the strawberry and potato fields will be counted among the needy places in some seasons. Bulletins No. 6 and 9 of the Division of Vegetable Physiology and Pathology and Farmer's Bulletin No. 38, all of the U. S. Department of Agriculture, are devoted to this subject, and furnish most valuable details.

"The Spraying of Plants" by the late Mr. Lode-man of Cornell University is a handy volume published by Macmillan & Co. of N. Y. which covers the whole field indicated by the title in a very complete manner, information having been compiled from every available source. Every farmer should read this book, and own it.

TEACHING ARITHMETIC.

BY PROF. D. E. LANTZ.

THERE is a common notion abroad among public school teachers that too much attention is given in the schools to the subject of arithmetic; that great reforms are needed in the methods of teaching other subjects; but that arithmetic, by reason of the fuller recognition of its claims to consideration, will be well taught without any improvement in methods. A long experience in testing the results of teaching in our common schools leads me to conclude that, except the English language, no branch is so poorly taught as arithmetic.

I put language first, because the entire teaching fraternity in circles engaged in secondary and higher education have agreed upon this point; and many persons have pointed out the great lack of

adequate results from teaching the mother tongue, both in England and America. So important is reform in this matter that I believe it would result in reforms in all teaching, and especially in correcting the most obvious defects in teaching arithmetic.

The reform needed in language teaching is not in the line of technical grammar, but is rather in giving better opportunities for practice in speaking and writing the mother tongue correctly. This would not necessarily mean more composition work in the schools, but better direction to that work. The pupils who come from the schools are just as deficient in the power to think as they are in the ability to express thought accurately. Correct thinking and correct expression go together; and the oral expression of thought is just as important as the written. The teacher should always be careful to lead children to correct the faults of spoken language. In this I include faulty articulation and pronunciation as well as errors of syntax. No common errors of speech should be allowed to pass unnoticed; and every recitation will furnish the means of language drill. Every conversation between pupils and teacher may be a means of such training if the teacher is imbued with the spirit of practice and kindness. Conversation is a most important, though greatly neglected part of our education. Nothing so much shows the real culture of a person as his ability to converse well.

It is in the neglect of language that I find the greatest obstacle to good work in mathematics. The pupil who cannot think logically and speak correctly is poorly equipped for mathematical analysis of any kind. Analysis is the key to every closed door of mathematical knowledge. Without it, the student is a mere machine applying memorized formulae or stumbling through unfamiliar processes. By long training, I will admit that skill in the synthetic processes may be attained. But skill in them gives no power to apply to the problems of everyday life. It does not develop the reasoning powers or the imagination. Skill in the processes of arithmetic ought to be sought after and acquired without fail, but that skill is not the end coveted, nor indeed any considerable part of it.

Judging from thousands of examination papers presented for entrance to the State Agricultural College, I would suggest the following as chief defects in teaching arithmetic in our public schools:—

First, neglect of oral solutions, or mental arithmetic.

Second, carelessness in the language of the solutions oral or written, leading to carelessness in the thought itself.

Third, too much attention to rules and formulas, too little to principles.

Fourth, neglect of definitions. This is another language failing. Clear definitions are absolutely necessary to clear ideas.

Fifth, slovenly work. Neatness of arrangement and accuracy of punctuation are the best helps to clear understanding; yet how often the sole end aimed at seems to be obtaining a correct answer to the problem.

Business Comparisons.

How often do we hear, or see in print, that young Mr. Smith who has been practising law for two years does not amount to a third-rate attorney, or that Mr. Jones, the new minister, is disappointing his audience by the milk and water diet which he is feeding them, or that Mr. So and So is making a failure of his manufacturing enterprise and is about to sell out and go west. In strong contrast with all this, how rare to hear of a young farmer who has taken up his life work in earnest who has made a failure simply from lack of sufficient education to carry his business on successfully.

There are doubtless many among the professions who have or seem to have, a greater amount of means than does the farmer. But statistics that the real tangible wealth in the hands of a few, hence the socialistic problems of the day, and whereas many who are doing a large amount of business are really hardly even with the world, the first gust of misfortune will sweep them entirely off their feet, wrecking their ambitions as well as their prospects for the future. As for the lower classes, they have not sufficient for their daily needs and should fortune favor them with a share of the world's good by inheritance or otherwise, how quickly it is dissipated and the possessor just so many degrees lower in the social scale as was the amount of the goods bestowed upon him.

But the farmer, although not possessed of a large fund, has saved the little that has come to him honestly, and when the pressure of hard times comes is not without the means to tide him over. The wide-awake, sympathetic farmer is the first to respond to calls for help, in time of famine or pestilence, with his gifts of food and money. These are some of the reasons why I claim that the farmer is without a peer when contrasted with the elements prominent among the various classes of modern society.—A. S. Clark, in *New England Farmer*.

The Ideal Agricultural College.

While this paper is bound to have many imperfections due to the haste in which it was written, I would not have you suppose the opinions here expressed are hastily formed. The arguments here presented and the opinions expressed are the outgrowth of more than a dozen years of observation and a good deal of reflection.

Let me say, at the outset, that what is here said is in no sense to be taken as a criticism of our own excellent State Agricultural College. My purpose is to present my own ideal; and the presentation of this ideal can imply criticism only to the extent that the ideal college is shown to be more practical, more easily workable, more fruitful of good results, and less expensive than the real institution that is so successfully accomplishing its mission of usefulness.

I may say, further, that this ideal college is not ideal in the sense that implies the impossibility of realization. With wise and sympathetic leadership, it could be made a reality within three years. It is planned to meet the hard conditions that now obtain in Colorado; to take the boys and girls from the district schools of the State at the age of fifteen or more years, and fit them by a four years' course of instruction and manual training to be useful citizens of the State—real leaders among the people who pay for their education; to make manly men and womanly women of the young people, ever striving, while educating their brains and training their hands, to keep them in full sympathy with the throbbing industrial life by which we all are and ever must be surrounded, and which is hungering for the best that can be given by men and women who are trained to think and to work, whose sympathies are with those who toil in what are known as the humbler walks of life, and whose lives are dedicated to usefulness and not to selfishness.

This ideal college is not a college of the old sort; it is not a university of the new kind; but it is a school in which the young may receive what President E. Benjamin Andrews calls "the constituents of a sound education," which are, "first, character; second, culture; third, critical power; . . . and, fourth, power to work hard under rule and under pressure." It is not merely an agricultural school, but a college of agriculture and the mechanic and domestic arts. It is to begin well equipped for work in the three great branches of the industrial world which are its domain. With its growth and larger opportunity and endowment, it will add facilities for instruction and practice in special arts and trades, always remaining true to the ideal that that education is imperfect and one-sided which trains the mind while neglecting the bodily members or teaches the hands to work and gives the mind no gift to think.

The student, from whatever calling or condition he comes, and especially if he comes from the humble home of the poor, must be met and taught by men and women who believe in him, who sympathize with him, and who respect him for what the best of his class may become. What an inspiration it would have been to the teachers of a Lincoln, a Lowell, or a Greeley could they have known what their pupils were to become! I am not sure but every true and worthy teacher should uncover his head in the presence of the student who has the purpose and the courage to try to get a college education; for is not that a sacred place in which young people renounce their freedom for four years at a time of life when years are very, very long, and freedom is thrice precious? So the teachers in this college must be choice spirits, whose lives are wholly given over to loving service in devotion to that ideal of the poets and prophets—the heroic man of whom even a future worthier than the present shall be unworthy.

The justification for this college, which I would have our State build on a foundation already deeply laid, lies in the fact that we are rapidly approaching the time when the colleges will be sending out too many scholars who are scholars and nothing more. Personally, I think the time is here, when we have too many scholars condemned to starving lives because their education is one-sided, because they have been educated in schools out of harmony with this industrial age. They have worked for culture and for critical power; but the first and the last—character and the power to work hard under stress—they have neglected. My contention is for an education that will fit men and women for the emergencies of life; that will make them strong in the best qualities of manhood and womanhood, keen and quick and sure of thought, strong and swift and skillful of hand, with sympathies broad enough to appreciate all thoughts and all passions of all men. When I have given the students this, you may give them all the special scholarship and all the technical skill you like, or you may leave them as I have left them, and we may be sure of their good behavior and their worldly success.

That there is a woeful lack of this sort of education is proved beyond the slightest room for cavil by the vast number of ill-kept and unprofitable farms and workshops in the country; by the numberless untidy, unhappy, and unhealthy homes; by the multitude of schools that are kept and not taught; and by the countless lives that are almost without hope and comfort because without the inspiration and conscious power which are given only to those who have a firm grip on the things spiritual and material that make life worth living.

For the most part, the colleges and high schools of today are built on ancient foundations. They follow methods well enough suited to times centuries past. The traditions of the past dominate them. They teach the dead languages and outgrown systems of ethics and philosophy because these were taught by the masters in a different age. They assume (unconsciously, perhaps) that every graduate is to enter professional life and be in position to sit down and wait with comfortable certainty that a

good living, great influence, and the unquestioning respect of the world are his heritage. They attempt to develop character by teaching a system of ethics based upon the sayings of heathen philosophers and their disciples among the narrow "scientific" agnostics of today, forgetting or not knowing that the whole of ethics, or morality, is summed up in a single word, self-control, and that it has received its most luminous expression in the words of Jesus Christ, "Whatsoever ye would that men should do to you, do ye even so to them." The same doctrine is implied by Paul in his confession of his own lack of complete self-mastery, "For to will is present with me, but to do that which is good is not, but the evil which I would not, that I practise."

Let me repeat that the basis of ethics is self-control. The soundness of a man's character is measured by the wisdom and steadiness and certainty with which he masters himself in all his relations. Manual training makes for morality by giving this self-control. It gives the student patience, truthfulness of eye, soundness of judgment, steadiness of nerve; and these are the components of the best morals. You cannot run an engine, guide a plow, turn a chair-leg, forge a horse-shoe, grind a chisel, or file a saw, and do it well, without learning a lesson in the mastery of self. Hence the value of manual training as a builder of character. Whenever these acts have become habitual, they have lost their chief value for education; so it is better, from the educational point of view, to teach several things to the point of skill with close attention than one thing to the point of skill without attention.

Perhaps I have said too much by way of introduction or have said it unwisely; but it seemed necessary to indicate what seems to me to be the mission and the method of industrial education. I will now give an outline of a course of study and practice work which appears to me to be well suited to give the education which the times demand. The range of subjects is not great, but the essentials are so given that the result should be thorough discipline of the thinking powers, good command of the English language, liberal acquaintance with history and science, sound information concerning the students' surroundings, mastery of the principles of the government under which he lives, eyes well trained to see with certainty and distinctness, hands skilled to work with precision and effectiveness. And after this, in the branches he may choose with the largest freedom, the student will have opportunity to gain a good working mastery of his choice art or science or trade. For doing this work creditably, the student will be given the customary degree of Bachelor of Science.

The following specific explanations will need to be kept in mind to understand the outline which follows. The course covers a period of twelve terms, with an extra vacation term for the training of the young men. The forenoon of each day is divided into periods, or "hours," of fifty minutes each, and is devoted to classroom instruction. The afternoon is divided into periods of two hours each, and is devoted to laboratory and practice work. Each student is required to take all the forenoon subjects of the first three years and one forenoon subject each term of the fourth year. In the fourth year, each student must take two elective subjects in addition to the required subject of each term, with afternoon work as indicated in the outline. The afternoon work is planned to suit the special needs of men and women, and all must take the prescribed work. All students will take vocal music one hour a week during the first three years, and all young men will take military drill four hours a week during the same period. Special physical exercises will be given the young women at the same time. Throughout the course each student will be required to give one hour a week to rhetorical work. The figures following the subjects indicate the number of hours a week given to each of them. Each afternoon subject is given ten hours a week.

CLASS WORK—FORENOON.			
1. Arithmetic, 5.	Grammar, 5.	Physiography, 5.	Drawing, 4.
2. Algebra, 5.	English Analysis, 5.	Physiography, 5.	Drawing, 4.
3. Algebra, 5.	Composition, 5.	Civil Government, 5.	Drawing, 4.
4. Geometry, 5.	Rhetoric, 5.	Economics, 5.	Drawing, 4.
5. Geometry, 5.	Rhetoric, 5.	Economics, 5.	Drawing, 4.
6. Geometry, 5.	English Literature, 5.	U. S. History, 5.	Drawing, 4.
7. Algebra, 5.	Geology, 5.	U. S. History, 5.	Literature, 4.
8. Trigonometry, 5.	Physics, 5.	European History in 19th Century, 5.	Literature, 4.
9. Logic, 5.	Physics, 5.	Chemistry, 5.	Literature, 4.
10. Physiology, 5.	Elective, 5.	Elective, 9.	
11. Biology, 5.	Elective, 5.	Elective, 9.	
12. Philosophy, 5.	Elective, 5.	Elective, 9.	

The elective studies must be taken, in part at least, in series. For example, the student choosing Irrigation or Mechanical Engineering for his principal elective study, will be required to take higher mathematics. Among the elective series will be: Agriculture three terms of nine hours a week; Horticulture, three terms of nine hours a week; Irrigation Engineering, three terms of nine hours a week; Mechanical Engineering, three terms of nine hours a week; Domestic Economy (Household Art), three terms of nine hours a week; Chemistry, three terms of nine hours a week; Botany, Entomology, Psychology, Higher Mathematics, each three terms of five hours a week. As occasion demands, other electives will be offered.

AFTERNOON WORK.

Men.	Women.
1. Bench work in Wood.	1. Household Art.
2. Machine work in Wood.	2. Household Art.
3. Agriculture.	3. Bench Work in Wood.
4. Horticulture.	4. Household Art.
5. Iron Work.	5. Household Art.
6. Botany.	6. Botany.
7. Elective.	7. Elective.
8. Physical Laboratory, ½ term; Elective, ½ term.	8. Physical Laboratory, ½ term; Elective, ½ term.
9. Physical Laboratory, ½ term; Chemical Laboratory, ½.	9. Physical Laboratory, ½ term; Chemical Laboratory, ½.
10. Chemical Laboratory, ½ term; Physiological Laboratory, ½.	10. Chemical Laboratory, ½ term; Physiological Laboratory, ½.
11. Elective, ½ term; Biological Laboratory, ½.	11. Elective, ½ term; Biological Laboratory, ½.
12. Elective.	12. Elective.

At the end of the third term—the work of that term being its

(Continued on page 92)

Calendar.

1896-97.
Fall Term—September 10th to December 29th.
Winter Term—January 5th to March 27th.
Spring Term—March 30th to June 10th.
June 10th, Commencement.
1897-98.
Fall Term—September 9th to December 18th.

To School Officers.

The College Loan Commissioner has funds now to invest in school district bonds at par. The law requires that no bonds be sold at par or less without being first offered to the State School Fund Commissioner and the State Agricultural College. Address C. R. Noe, Loan Commissioner, Leon, Kan.

GENERAL LOCAL NOTES.

Eva Kneeland, Second-year, entertained a few College friends last Monday evening.

Prof. Brown and Supt. Thompson were kept from duty several days last week on account of illness.

A large number of students take part in the entertainment this evening for the benefit of the Kindergarten.

Prof. Olin contributes a beautiful sonnet, a tribute to William Morris, the English poet, to the February number of the *Arena*.

A half dozen or more members of the Faculty were absent last week to give assistance in farmers' institutes in various parts of the State.

Three regents have been appointed—Hon. C. B. Hoffman, of Enterprise, to succeed himself; Hon. Harrison B. Kelly, of Burlington, a member of the Board two years ago; and Mrs. John P. St. John, of Olathe.

Glen Manlove, a nephew of Joel T. Carey, who has been attending College here the past few months, left Tuesday for Glenrock, Wyoming, where he will accept a position in a telegraph office.—*Manhattan Nationalist*.

Mrs. Richards, of Lawrence, better known here as Mrs. Cheseldine, the first Superintendent of the Sewing Department of the College, passed through the city Wednesday, en route home from a visit to her husband's people in Western Kansas.—*Manhattan Republic*.

Prof. and Mrs. Emch visit for a few days with their parents, Prof. and Mrs. Walters, before leaving tomorrow for their new home in Biel, Switzerland, where Prof. Emch has been elected to the Chair of Mathematics in the University. They expect to sail from New York the 13th inst. on the *Normandie* of the General Transatlantic Line, for Havre, and if all goes well will reach Biel about the 20th.

Mrs. Kedzie's address before the Pure Food Association at Topeka on "Some Cooking Schools Abroad and at Home," is thus commented on by the *Capital*: "Mrs. Kedzie is an able speaker, and she presented the subject which is near to her heart in an earnest and convincing manner. Mrs. Kedzie talked interestingly of the cooking schools of England, and the continent, and finished by proving that in this, as in many other things, our own country takes the lead."

GRADUATES AND FORMER STUDENTS.

The visit, a week ago, of A. W. Staver, Second-year in 1895-6, was overlooked. He attended the Hamilton Annual.

According to the *Students' Herald*, C. E. Yeoman, '92, is about to lose his eyesight. He is being treated at a Chicago infirmary.

Isabella R. Frisbie, '94, left last week for Brookings, South Dakota, to resume her duties as Professor of Household Economy in the Agricultural College.

H. J. Beachum, student in 1893-4, was married recently to Miss Pearl Harle, of Clay Center. He will work with his father in the tailoring business in Manhattan.

Laura Day, '93, suffered the loss of a considerable number of books by the burning, last week, of the Stout Manual Training School at Menominee, Wis., in which she was instructor in Household Economy.

Clayton Hunter, Fourth-year, in 1891-2, was married recently to Miss Florence Fain, a Missouri girl who has lived for a year past at Wagoner, I. T., Mr. Hunter's home. Mr. Hunter will engage in the drug business at McAlister, I. T.

The Faculty Club Meeting.

The Faculty Club on Saturday evening resolved itself into a character party as the guests of Mrs. Mayo and Mrs. Nichols at the residence of the latter. While Farmers' Institutes and the prevalence of la-grippe occasioned the absence of several, yet a goodly number assembled and a most enjoyable time was had.

The "Butler" majestically waved the guests to their cloak rooms. "Puddin' Head Wilson" took impressions of all the thumbs he could find at his service, and "Col. Sellers" talked investments to the "Kentucky Colonel" until both saw millions in them all. "The New Woman flirt" made eyes behind her big fan, while the sweet-faced "Friend" smiled on all the company. "Little Miss Muffet" cared for her spider and wailed for her curds and whey: "Pomona" clung to her yellow-backed novel; "Abigail Adams" told of her hardships in war times; "Sister Arvilla"

wore her beads, and while "Samantha and Josiah Allen" related their experiences at the Fair and at Saratoga the "Heavenly Twins" quarrelled and were cases for "Grandma's" pacifying stories. "Night" in the glory of the stars and moon, "Priscilla" with puritan simplicity, and "Alice in Wonderland," were there, while "Patient Griselda," "The Press," "Diamond Dyes," and a bit of "Mother Goose" shocked the good old "Alchemist" whose only thought was to give all the company some of his "elixir vitae."

The prize, a bunch of carnations, was awarded to "Mrs. Abigail Adams" as the best personation, "Josiah Allen" ranking as a good second.

COLLEGE ORGANIZATIONS.

Student Editors—R. W. Bishoff, O. E. Noble, Wilhelmina Spohr.

Y. M. C. A.—President, S. J. Adams, '98; Vice-President, G. D. Hulett, '98; Recording Secretary, O. S. True, '98; Corresponding Secretary, J. M. Pierce, '98; Treasurer, R. B. Mitchell, '99.

Y. W. C. A.—President, Emma Finley; Vice-President, Maggie Correll; Recording Secretary, Ethel Wolfley; Corresponding Secretary, Mary Waugh; Treasurer, Lucy Cottrell.

Alpha Beta Society—President, E. Shellenbaum; Vice-President, Alice Shote; Recording Secretary, Eva Philbrook; Corresponding Secretary, W. A. McCullough; Treasurer, F. J. Rumold; Critic, J. M. Westgate; Marshal, L. B. Jolley. Meets every Saturday afternoon in south Society hall.

Ionian Society—President, Gertrude Lyman; Vice-President, Mary Norton; Recording Secretary, Dora Shartel; Corresponding Secretary, Maude Barnes; Treasurer, Nannie Williams; Critic, Winifred Houghton; Marshal, Mary Waugh. Meets every Saturday afternoon in north Society hall.

Hamilton Society—President, L. G. Hepworth; Vice-President, V. Maelzer; Recording Secretary, Wm. Anderson; Corresponding Secretary, G. G. Menke; Treasurer, B. H. Shultz; Critic, W. L. Hall; Marshal, A. F. Kinsley; Board of Directors, A. C. Smith, S. J. Adams, H. M. Thomas, G. F. Farley, F. O. Woestemeyer.

Webster Society—President, R. W. Bishoff; Vice-President, J. E. Trembley; Recording Secretary, Earl Butterfield; Corresponding Secretary, E. B. Patten; Treasurer, M. H. Horn; Critic, F. H. Meyer; Marshal, G. W. Owens; Board of Directors, S. Dolby, F. Zimmerman, G. G. McDowell, L. P. Keeler. Meets every Saturday evening at 7:30 in south Society room.

February 6th.

At the usual hour, President Shellenbaum called the Alpha Betas to order. The first number on the program was a piano duet by Misses Adelaide Wilder and Mariam Gilkerson. G. D. Hulett led in devotion. C. R. Haymond next gave a select reading. The subject for debate, "Should Education in our Public Schools be Compulsory?" was argued on the affirmative by Jennie Ridenour and on the negative by Miss Painter. Josephine Wilder favored the Society with a vocal solo, with Miss Adelaide at the piano. The Gleaner was presented by its editor, Miss Netteham. The Society took eight minutes recess, after which followed extemporaneous speaking. The usual business was transacted and Society adjourned.

W. A. M.

January 30th.

The Ionian society was called to order by President Lyman, and the exercises opened with a song, after which Minnie Spohr lead in devotion. After the roll call and the initiation of several new members, Miss Copeland gave a memorized speech, entitled "Curfew must not blow tonight." It abounded in wit, and was delivered in Miss Copeland's usual pleasing manner. Miss Maelzer's essay on "A horse-shoe," followed and was a good production. The Oracle, edited by Miss Grace Stokes, was a splendid edition, and the girls pronounced it "Good enough for an Annual." Miss Perry pleased her audience with her song, "The idol of my heart," and the exercises were concluded with the first chapter of an original story by Miss Rhodes. Such short, spicy programmes are what make the Ionian Society so interesting.

M. B.

February 6th.

After missing the pleasures of one Saturday evening in Society, the Websters re-assembled in Society hall for a good lively season. The expression on the face of each member told that he was there for business and to make up for lost time. As Pres. Bishoff ascended to his seat and rapped for order, the members quietly descended to their seats and were ready for work. C. H. Lehmkuhl led in devotion H. Richards, F. Craik, and C. M. Correll were then initiated as members, making a total of 99. The program opened with the debate on "Resolved, that the English speaking people should accept the reformed method of spelling." The affirmative was presented by C. D. Blachley and Z. D. E. Brown; the negative, by C. B. White and F. C. Sweet. Both views were well brought out and the Society decided in favor of the affirmative. "Crime Its Own Detector" was the title of a declamation given by O. S. True. L. P. Keeler, as music committee, brought forth and introduced Mr. W. J. Rhoades who played that beautiful piano solo, "The Autumn Birds' Calling." The Reporter was edited by J. M. Pierce. It was an excellent edition. Motto.

In the struggle for power or scramble for pelf,

Let this be your motto, "Rely on yourself."

For whether the prize be a ribbon or throne,

The victor is he who can go it alone.

C. Wheeler then introduced music. This closed the program and a lively business session was held in which some of many trials which have been pending for a long time were disposed of. Adjournment 10:30.

E. B. P.

Weather Report for January, 1897.

BY C. M. BREESE, OBSERVER.

The chief characteristic of the month was bad roads that prevailed almost uninterruptedly throughout it. The cold weather just at the close of the month may have injured wheat some; it is yet too soon to determine. The ground is thoroughly saturated with moisture.

Temperature.—The mean temperature was 27°, which is 2.09° above normal. There have been fourteen warmer and twenty-two cooler Januaries on our

record. The highest temperature was 58°, on the 8th; the lowest, -5°, on the 24th—a monthly range of 63°. The greatest daily range was 43°, on the 23d; the least, 6°, on the 4th and 14th. The mean daily range was 17.74°. The warmest day was the 1st, the mean temperature being 44.5°. The coldest day was the 24th, the mean temperature being 2°. The mean temperature at 7 A. M. was 22°; at 2 P. M., 36.64; at 9 P. M., 25.68°. The mean of the maximum thermometer was 36.74°; of the minimum, 19°; the mean of these two being 27.87°.

Barometer.—The mean pressure for the month was 28.939 inches, which is .069 inch above normal. The maximum was 29.402 inches at 7 A. M. on the 24th; the minimum, 28.21 inches; at 9 P. M. on the 16th; monthly range, 1.192 inches. The mean at 7 A. M. was 28.954 inches; at 2 P. M. 28.917 inches; at 9 P. M., 28.947 inches.

Cloudiness.—The per cent of cloudiness was 44.08. This is 2.08 per cent above normal. The per cent at 7 A. M. was 46.77; at 2 P. M. was 48.39; at 9 P. M. 37.1. Seven days were entirely cloudy; one was five-sixths cloudy; four were two-thirds cloudy; two were one-half cloudy; five were one-third cloudy; three were one-sixth cloudy, and nine were clear.

Precipitation.—The total precipitation was 1.32 inches. This is .53 inch above the normal. This fell in six storms, four of them snow storms. Seven and eight-tenths inches of snow fell during the month.

Wind.—The wind was from the north twenty-two times; southwest, twenty times; northwest, seventeen times; southeast fourteen times; south, eleven times; west, four times; east, three times, and from the northeast, two times. The total run of wind was 8,209 miles, which is 1,315 above the average. This gives a mean daily velocity of 264.81 miles, and a mean hourly velocity of 11.03 miles. The highest daily velocity was 756 miles, on the 4th; the lowest, 69 miles, on the 9th. The highest hourly velocity was 41 miles, between 10 and 11 A. M. on the 4th.

The following tables give comparisons with preceding Januaries:—

January.	Number of Days.	Rain in inches.	Per cent of Cloudiness.	Prevailing Wind.	Mean Temperature.	Maximum Temperature.	Minimum Temperature.	Mean Barometer.	Maximum Barometer.	Minimum Barometer.
1859...	4	1.50	49	SW	31.03	59	-3	...	...	...
1860...	1	.60	36	SW	29.97	70	-6	...	...	...
1861...	3	1.35	41	SW	23.61	62	-9	...	...	...
1862...	3	1.50	53	NW	18.03	40	-6	...	...	...
1863...	2	1.47	40	SW	36.52	69	-4	...	...	...
1864...	3	.44	51	NW	23.17	60	-13	...	...	...
1865...	2	.33	51	NW	27.04	49	-5	...	...	...
1866...	2	.65	50	N	22.57	47	-12	...	...	...
1867...	2	.31	43	SW	18.15	61	-12	...	...	...
1868...	2	1.15	42	SW	30.46	54	9	...	...	...
1869...	2	.05	44	SW	27.35	58	-3	28.79	29.30	27.90
1870...	2	.53	52	SW	28.85	62	-7	...	...	...
1871...	2	.13	40	SW	24.90	51	-8	...	...	...
1872...	2	.84	35	SW	19.66	49	-14	...	...	...
1873...	2	.50	58	SW	26.43	60	-4	28.74	29.35	27.95
1874...	3	.22	57	NW	14.87	48	-17	28.89	29.43	28.42
1875...	0	.00	11	SW	33.85	62	-7	28.82	29.37	28.30
1876...	4	.66	48	SW	25.20	64	-11	28.97	29.55	28.38
1877...	6	2.35	50	NW	33.09	55	0	28.76	29.25	28.41
1878...	3	.56	54	S-SW	37.82	61	15	28.55	29.10	28.05
1879...	4	.55	61	SW	19.35	49	-18	28.70	29.19	28.10
1881...	4	.42	59	SW	31.64	60	-1	28.72	29.23	28.20
1882...	4	.33	58	SW	18.02	55	-15	28.78	29.14	28.08
1883...	1	.30	38	SW	21.46	63	-22	28.78	29.30	28.20
1884...	4	1.08	34	SW	16.27	44	-18	28.68	29.10	28.00
1885...	5	1.36	52	NW	12.35	51	-19	29.01	29.50	28.53
1886...	4	.68	28	SW	22.05	62	-23	28.92	29.56	28.26
1887...	2	.65	22	N	15.42	63	-26	29.24	29.86	28.60
1888...	3	.78	22	N	27.84	53	-1	29.03	29.39	28.44
1889...	5	2.31	35	NW	23.10	62	-19	29.04	29.55	28.40
1890...	4	1.63	42	NW	29.44	57	2	28.97	29.33	28.47
1891...	4	.78	18	SW	22.25	64	-26	29.01	29.36	28.50
1892...	1	.02	26	N	22.99	53	-1	28.90	29.33	28.39
1893...	2	.71	29	N	26.60	74	-14	28.92	29.52	28.45
1894...	6	.69	35	N	22.64	72	-8	28.86	29.57	28.30
1895...	5	.31	49	SE	31.90	65	-1	28.92	29.57	28.50
1896...	5	1.32	44	N	27.03	58	-5	28.94	29.40	28.21
1897...	6	1.32	44	N	27.03	58	-5	28.94	29.40	28.21
Sums	125	29.06	1560	...	922.89	...	...	692.94	...	...
Means	3	.79	42	SW	24.94	...	...	28.87	...	...

WIND RECORD.

January.	Total Miles.	Mean Daily.	Maximum Daily.	Minimum Daily.	Mean Hourly.	Maximum Hourly.
1890	5980	192.90	419	64	8.04	28
1891	6842	220.71	601	79	9.20	56
1892	6517	210.23	460	31	8.76	29
1893	6667	215.06	496	55	8.96	36
1894	7774	250.77	413	90	10.45	33
1895	6429	207.39	478	43	8.64	32
1896	6731	217.13	450	92	9.05	30
1897	8209	264.81	756	69	11.03	41
Sums	55149	1779.00	...	...	74.13	...
Means	6894	222.38	...	...	9.24	...

Tributes to A. C. McCreary.

At a regular meeting held at Manhattan by Kaw Valley Camp No. 1011, M. W. A., Monday evening, February 1st, 1897, the following resolutions were unanimously adopted:

Whereas, By his death we have lost one of our most useful members, one who as a Woodman and a citizen enjoyed to the fullest extent the confidence of the whole community, therefore, be it

Resolved, That we bow submissively to the will of the Master, and that while we mourn his death as a personal loss we extend to his mourning wife and relatives our heartfelt sympathies in their hour of bereavement. And be it further

Resolved, That the charter of this Lodge be draped in mourning for a period of thirty days.

Resolved, That these resolutions be spread upon the records of this Lodge and a copy be sent to the family of the deceased, and a copy be furnished to the city papers for publication.

B. S. SEARS,
A. M. STORY,
W. S. LOWE,
Committee.

Whereas, by the death of our beloved brother, A. C. McCreary, his family are called to mourn the sad loss of a kind and faithful husband and a gentle, loving father, and the lodge one of its

best and noblest members, ever abounding in those virtues that makes the world better for having lived in it.

Brother McCreary so faithfully exemplified the teachings of our Lord, and of our noble order, that in his last ten years' service at the College as janitor he was never known to murmur or complain, and although suffering untold pain he still performed his arduous duties so well that not a word of complaint was offered by students or faculty. He was loved and respected by all who knew him, a model citizen, a Christian gentleman, and a true Odd Fellow. Therefore, be it

Resolved, That, as all that are born must die, we bow in humble submission to our heavenly Father's will, asking for grace to say "Thy will be done," and trusting that some glad day the golden links of friendship, love and truth will be reunited never more to be broken.

That we hereby tender our sincere sympathy to the bereaved family and relatives.

That our charter be draped in mourning for thirty days.

That each member be requested to wear mourning as directed by order for thirty days.

That a copy of the resolutions be spread upon the minutes of the lodge.

That a copy be sent to Mrs. McCreary and to our city papers.

C. H. PAINE,
J. J. PADDOCK,
I. S. SMITH,
Committee.

Junior Class Orations

First Division

February 6, 1897

PROGRAM	
MUSIC—Cadet Band	
E. S. ADAMS	What I Found
T. W. ALLISON	Shall Cuba be Free
JESSIE G. BAYLESS	The Opening of the Seasons
MUSIC—"Stay With Me"—Otto Lob	
Misses Pfuetze	Lyman
Perry	Gilkerson
J. W. ADAMS	Natural Science in the
	Common Schools
J. H. BLACHLY	Patriotism
WM. ANDERSON	Black Friday
MUSIC—Clarinet Solo	
T. E. Thompson	
J. H. BOWER	Advances in the Art of
	Healing
E. C. ADAMS	Bill Nye

Beautify the Home.

Loudon, an eminent Scotchman, describes horticulture as an art of design and decoration. He considers it a most noble occupation, one that is not excelled by any of its beneficial influences upon mankind. He speaks of it as something that refines and elevates man's thoughts and actions, as something not only useful in domestic life, but which implants cheer and happiness in the home.

No institution means more to the true American citizen, says a sensible writer in the *Southern Florist and Gardener*, than home—a refuge, place of rest, and source of love. Especially is home a sacred refuge for the farmer. His life is necessarily a more or less isolated one. He possesses a little kingdom of his own, and seldom communicates with the outer world, except through literature. Food, clothing, and education must all be secured by hard manual labor. If there is pleasure or comfort to be obtained, they must be found in his labors or in his home. Should not the farmer, then, have a home of the greatest possible beauty, comfort, culture, and refinement?

The greater proportion of beautiful homes, however, are not found in rural districts, but in towns and cities. It seems that where men congregate in largest numbers we find the most attractive homes and home surroundings. This condition is largely due to the excess of wealth possessed by town and city inhabitants over their country friends. But the natural advantages of rural people in the way of soil, labor, and ornamental plants within easy possession, should enable them to produce just as tasteful, elaborate, and pleasing grounds as their city neighbors with all their wealth.

As a prosperous country grows in age, the number of beautiful and attractive country homes naturally increases. England ranks above all others in the perfection of its landscapes, and as a result happiness, refinement, and contentment predominate in most of her homes. Home must mean more than a mere dwelling-place, and life more than a mere animal existence of constant drudgery of the physical being to the utter neglect of the mental and spiritual.

Too many farmers follow the example of the domestic animals for which they care. Eating, sleeping and daily exercise of the muscular system form the monotonous routine of their lives. Not enough atten-

tion is given to those things which would inspire a happier, purer, and better life. When the wife or daughter asks for a few trees or flowers to embellish the front yard or to cheer the home when winter makes everything dismal and gloomy without, too frequently the husband replies that he has no time or money to spend on such unnecessary things. He thinks that his family can well get along without flowers, music, papers, and books, as these are simply things for enjoyment. Farmers who hold such views cannot be happy themselves nor make their families happy.

The farmer's wife should have everything which can contribute to her comfort and pleasure. From early morning until late at night she willingly and cheerfully performs hundreds of little duties which seem insignificant in themselves, but are of the greatest importance to the family. She delights in making the home bright and cheerful—a pleasant refuge for her husband, where he can retreat at the close of a day's toil and find rest, peace, and happiness.

Should not the farmer, then, give his wife and daughters hearty co-operation in the embellishment of the home and surroundings? Should he not encourage and help them in securing and planting trees, shrubs, vines and plants, which will make the place more beautiful and attractive?

Most, if not all, of us are familiar with country homes which are destitute of order and neatness and conspicuous for the absence of beautiful trees, shrubs, and flowers. We are also familiar with rural homes in and about which great pains have been taken in their embellishment. The inmates of the first nearly always lack culture and refinement, are discontented and unhappy, have little interest in themselves or their neighbors, and are anxious to leave home at the first opportunity. The occupants of the second are ever ready to proclaim, "Home, home, sweet, sweet home, there is no place like home," and look forward with regret to the time when they will be compelled to make for themselves another home.

No question should concern farmers more than how to keep their sons on the farm. Thousands of bright, active young men are annually deserting the farm and flocking to towns and cities. As a rule they cannot be censured for leaving the old homestead, where no time or money were expended to make their surroundings pleasant and interesting. City life is sought with the hope of finding more pleasant employment or environments. The cities cannot get along without some of the country boys, but the farms of our country need a good percentage of these progressive young men to help advance the noble cause of agriculture. And horticulture must play a most important part in helping to retain the boys on the farm.

Horticulture has been described as the flower of agriculture. Engaged in stock-raising, grain, farming or any other general line of agriculture, do not fail to foster horticulture as the flower of your occupation. Surround the home with the best of nature's gifts. Plant fruits, trees, and flowers that will yearly add to the picturesqueness of the place, and impart to the home such strong magnetism that the boys will have no desire to leave it in search of a more interesting life.

If the wife is encouraged and given the proper assistance, she will usually make an excellent landscape gardener. She naturally takes more interest in the home than husband or son. Homemaking is her chief work, and she delights in doing everything that contributes to the happiness of the family.

The farmer should not hesitate to provide, in the first place, the proper literature. Procure one or more standard works on landscape gardening, which set forth the fundamental principles that should be employed in ornamental planting, and which describe the forms of vegetation that are most useful in developing attractive grounds. Subscribe for one or more horticultural papers. Send for catalogues of reliable nurseries. Then begin study in earnest. Prepare careful plans, make a map of your grounds, designating the location of trees or shrubs already planted, and where additional ones are to be set. Execute the plans as rapidly as possible, for it takes years to grow large trees.

Let the farmers of our country give the home more thought and attention. Study to make it the most pleasant spot in all the neighborhood. Make it the best and finest of his labors. Happiness, contentment, and nobler characters will be the reward. And the sons and daughters when living in their own homes will recall with thankful hearts and pleasant memories the years spent at the old homestead.—*Baltimore Sun*.

FARM NOTES FROM VARIOUS SOURCES.

There is no one in the whole community, no matter how well off, that can live so well as the farmer even of moderate means. The farmers, observes the *Rocky Mountain Husbandman*, can always have on hand, in season and out an abundance of vegetables, home put up fruits, meats fresh, cured and salt; butter, milk, cream, eggs, chicken, turkeys, geese, ducks, and all these commodities prepared on the farm come in the line of economical living, while to the villager the most of them are regarded as luxuries.

Most of us can talk to our neighbors for hours on practical farming, and with a little practice we can get our thoughts together for print. We don't know what we can do until we have tried. A good way to form a habit of writing would be to keep account of your business transactions. The most important part of any business is the profit, and it is necessary that we know just what that is. This is a very good time to begin thinking on this subject, and it will soon be time to act. At the beginning of the year is the best time to close up the last year's work and arrange for the next.—*National Stockman*.

The Ideal Agricultural College.

(Continued from page 90.)

beginning and the work of the fourth term its conclusion—the young men will spend the summer in practical agricultural and horticultural work, which will be illustrated and explained by lectures and text-book work, the theoretical part of the work to occupy one-fifth of each week. During this extra term the young men will be paid from three to five dollars a week, according to their diligence and the value of their work. It is expected that this summer's work will be of great practical and educational value to the student and of no net cost to the College.

Perhaps some of the work will be better appreciated with a little explanation.

Let it be noticed that the first year of the course gives the student a review of arithmetic and two terms of algebra, the knowledge of arithmetic being necessary to every citizen, and the work in algebra being of prime importance as a training in logical thinking and as a preparation for the study of physics and the higher mathematics; that it gives him three terms of training in the correct use of his native language, a knowledge of which is of the greatest importance to the intelligent citizen; that it gives the student three terms in which to study the characteristics of his country and his government; that the three terms in drawing give him an invaluable training of the eye and the hand; that the afternoon work gives him a knowledge of tools and some skill in their care and use; and that the military training is unsurpassed for giving precision and promptness in walking and in other bodily movements. Besides all this, he receives training and practice in declamation and debating, thus learning to think on his feet and to express his thoughts. The year is complete in itself; and, while it is a logical preparation for the following studies, the student who can have only one year for study could hardly choose a better list of studies and practice work for a single year.

The summer's work in agriculture is something of a novelty; but its effect will be to make a genuine success of agricultural training, which is practically a failure in most agricultural colleges. The custom of paying the students for their practice work in agriculture is a confession of its worthlessness as an instructive part of their college course. In the ideal college this custom is to be done away with except for the extra summer term, when the work done will be ample justification for the small pay given.

The work of the second and third years has been sufficiently justified.

Some may be inclined to insist that there should be more than one course of study. My answer is, that, with a well-balanced scheme of instruction, such division into courses is needless, wasteful of money, and not conducive to the best training. I am not unwilling to concede that there are some fairly good reasons for giving several somewhat distinct courses of study; but it seems that the elective system of the fourth year of this course fully meets the needs of those who wish to specialize. For it must be insisted that the student is generally a very poor judge of his fitness for any special line of work till he knows something about other lines.

This agricultural college would not be ideal without its experiment station department organized to make original investigations and to disseminate information new and old. It must make large use of the printing-press. It must always be on the alert to find ways to make the work of the farmer more effective and more certain of satisfactory results.

There is another field that our ideal agricultural college must not neglect. It must cultivate the farmer who cannot or will not go to college and the farmer who cannot even read its bulletins. It must be a lecture bureau; must conduct farmers' institutes; must take the college to the people by providing special courses of extension lectures for communities willing to arrange for them and profit by them; must outline reading courses and give advice and suggestion by correspondence and by means of special printed circulars and its own "official organ," a weekly or monthly paper.

And more, even, than all this; it must be ready always, this ideal college of ours, to give up its most cherished notions and systems whenever better methods can be found; it must be a leader in all good things, and must never forget that its mission is a mission of service.—*Address by D. W. Working, Secretary of Colorado Agricultural College, before State Grange*.

We do not fertilize the soil, rear permanent fences, plant groves of oak and walnut for the benefit and pleasure of our children's children to the fourth and fifth generation.—*New England Farmer*.

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Professor of Industrial Art and Designing.
IRA D. GRAHAM, A. M.,
Secretary, Instructor in Book-keeping.
OSCAR E. OLIN,
Professor of English Language and Literature.
MRS. NELLIE S. KEDZIE, M. S.,
Professor of Household Economy and Hygiene
MRS. ELIDA E. WINCHIP,
Superintendent of Sewing
OZNI P. HOOD, M. S.,
Professor of Mechanics and Engineering,
Superintendent of Workshops.
ALEXANDER B. BROWN, A. M.,
Professor of Music.
JOHN S. C. THOMPSON,
Superintendent of Printing.
FRANCIS H. WHITE, A. M.,
Professor of History and Political Science.
CHARLES C. GEORGESON, M. S.,
Professor of Agriculture,
Superintendent of Farm.
ERNEST R. NICHOLS, A. M.,
Professor of Physics.
NELSON S. MAYO, D. V. S., M. S.,
Professor of Physiology and Veterinary Science
JULIUS T. WILLARD, M. S.,
Associate Professor of Chemistry.
ALBERT S. HITCHCOCK, M. S.,
Professor of Botany.
SILAS C. MASON, M. S.,
Professor of Horticulture,
Superintendent of Orchards and Gardens.
MISS JOSEPHINE C. HARPER,
Instructor in Mathematics
MISS ALICE RUPP,
Instructor in English.
HARRY G. CAVENAUGH, Captain 13th U. S. Infantry,
Professor of Military Science and Tactics.
THOMAS E. WILLY, A. M.,
Professor of Political Economy.
MISS JULIA R. PEARCE, B. S.,
Librarian.

ASSISTANTS AND FOREMEN.

C. M. BREESE, M. S., Assistant in Chemistry.
GRACE M. CLARK, B. S., Stenographer in Executive Office.
BERTHA WINCHIP, B. S., Assistant in Sewing.
WM. BAXTER, Foreman of Greenhouses.
W. L. HOUSE, Foreman of Carpenter Shop.
ENOS HARROLD, Foreman of Iron Shops.
GEO. SEXTON, Foreman of Farm.
C. A. GUNDAKER, Engineer.
A. C. MCCREARY, Janitor
JACOB LUND, M. S., Fireman and Steam-fitter.

ASSISTANTS IN EXPERIMENT STATION.

F. A. MARLATT, B. S., Entomology
F. C. BURTIS, M. S., Agriculture.
D. H. OTIS, B. S., Agriculture.
GEO. L. CLOTHIER, B. S., Botany
I. JONES, B. S., Horticulture

THE ACTUAL EFFICIENCY OF RECIPROCATING PUMPS.

BY PROF. O. P. HOOD.

IN designing irrigation machinery, there has been some doubt as to what efficiency could reasonably be expected from the common pump cylinder. Some have believed that the room for improvement was very large, and that some rotary pump must of necessity be more efficient than one having a reciprocating motion. In testing various pumps at this College, it has become evident that some devices are nearly as efficient as one has a right to expect under the circumstances, and that further improvement will be more in the line of economical adaptability than increased efficiency; for instance, when pumps give an efficiency of 85 per cent under ordinary conditions of pumping it is evident that even by the utmost refinements of mechanism the room for improvement is something less than the remaining 15 per cent. The factors which affect the efficiency of any given pump supplied with plenty of water are, the condition of the valves and the speed at which it is run and the height of water lift. A pump having the high efficiency of 85 per cent at lifts above ten feet and a speed of 10 strokes per minute had an efficiency of but about 70 per cent at a speed of 30 strokes. An other pump of the same size maintained its efficiency above 80 per cent up to a speed of 50 strokes per minute, but required a lift of above 20 feet to make so good a showing. From this it will be seen that each pump has a field in which it is better than the other. No one pump is equally efficient under all conditions, and to find the particular field of pre-eminent usefulness of each pump is of interest and some value. The pumping tests that have been carried on here have shown the following general summary.

Many of these items have been known in a general way, but to express the efficiencies in definite quantities as the result of careful tests is believed to be new.

SUMMARY.

[Taken from Report of the writer to the "Board of Irrigation Survey and Experiment" on "Pumping Tests."]

So far as the test goes, the following is shown:—

1. The efficiency of pumps, all having a right to be called good pumps, may vary from 20 per cent to 85 per cent, depending on the lift and piston speed.
2. A fall of 25 per cent in the efficiency of a pump in the usual range of windmill speeds is not uncommon.
3. A pump having a variation of only 5 per cent is possible.
4. For wells about 20 feet deep there is no need of using a pump of less than 75 per cent efficiency for average speeds.
5. Two pumps may compare very favorably at a certain lift and much less favorably at some other lift not very much different.
6. A pump having an efficiency of over 80 per cent at piston speeds up to 100 feet per minute is possible at a 20-foot lift.
7. Some pumps can be run at a piston speed of 180 feet per minute and maintain an efficiency above 70 per cent for lifts above 20 feet.
8. A pump with very large check valves on a very low lift may give an efficiency from 80 per cent at slow speed to 50 per cent at a piston speed of 80 feet per minute.
9. Pumps at slow speed and high speed discharge a little less water per stroke than at medium speed. This may be from 1 to 2 per cent.
10. A pump with small delivery pipe may at high speed deliver a considerably larger amount of water than computed from the cylinder capacity.
11. With pumps having an ample supply of water, the speed may be limited by the failure of the lower valve if its movement is not limited.
12. Valves of limited movement are preferable for fast speeds.
13. The addition of a stuffing box to any form of pump may seriously reduce the efficiency.
14. The initial stress on the up stroke at higher speeds is the destructive element on the windmill. The use of a device to reduce this is well worth consideration. At piston speeds of only 70 per minute, this sudden jerk may be two or three times the weight of the column of water lifted.

TREATING SICK STOCK.

BY PROF. N. S. MAYO, D. V. S.

ONE of the great difficulties to be encountered by the veterinarian, in country practice especially, is the indiscriminate dosing of his patient with various domestic remedies, some of which often aggravate the disease which nature is trying to combat. To illustrate, in flatulent colic, due to an uncommon practice to give a dose of bicarbonate of soda, followed by a dose of cider vinegar. The acid of the vinegar sets free carbonic acid gas from the soda and increases the pressure in the bowels already distended with gas.

Another bad practice often encountered is the giving of medicine through the horse's nostril. Medicine so given is liable to irritate the nasal chamber and pass down the windpipe to the lungs, strangling the horse or causing pneumonia. Medicines intended

to reach the stomach should never be given through the nose, nor should an animal be drenched that is not perfectly conscious and able to swallow freely. A number of instances can be recalled, where cows affected with "milk fever" have been strangled to death by trying to drench them while unconscious and unable to swallow.

In drenching an animal, the medicine should be placed in some thick glass bottle with a tapering neck and diluted enough with water so that it will not irritate the mucus membrane of the mouth or esophagus. The animal's nose should be elevated just enough to keep the medicine from running out of the mouth, then the medicine poured slowly, well back in the mouth, care being taken that the animal does not get the neck of the bottle between its teeth and break it. The tongue should not be drawn from the mouth nor the animal pounded on the larynx. The head should not be drawn up or tipped back too far, as it is impossible for an animal to swallow with the head in such a position.

Medicines should not be given, except for a definite purpose which the person who gives should understand, or upon the advice of some one competent to prescribe.

Many persons labor under the impression that they are not doing anything for a sick animal unless they are giving a dose of *something* every few moments. Remember that good care and nursing is more important than medicine in almost all diseases, and by kind, careful attention to the smaller wants and conditions of the animal you can assist nature in overcoming the disease, rather than retard her efforts by indiscriminate "doping." In many cases of severe sickness, no attempt should be made to drench an animal, the disturbance and excitement induced by this operation often working greater injury than the medicine can overcome. An excellent method of giving medicine in small quantities without disturbing the horse is by means of a hard rubber piston syringe, holding about two ounces. Opening the horse's mouth, the medicine can be forced to the back of the mouth, and is quickly swallowed. With a little practice, this can be accomplished quickly, without disturbing the animal or wasting medicine.

Another bad practice which is rapidly disappearing is that of bleeding an animal. Except in rare cases, it is a positive injury to bleed an animal. Bleeding is not practiced by qualified veterinarians, any more than it is practiced in human medicine. To draw blood, the vital, nourishing, and repairing fluid, from the body of a sick animal is to draw so much living energy from him, every bit of which is needed, and greatly lessens his chances of recovery.

As most of the diseases of domestic animals, aside from contagious disease and those resulting from injuries, are caused by errors of diet; so nearly all can be assisted toward recovery by kind and careful attention to their food and surroundings. Clean, quiet, dry, and comfortable quarters, with nutritious, easily digested, and not bulky food, at proper times, with plenty of pure fresh water, will in most cases do more to hasten recovery than the medicines given, and these means for the treatment of disease are within the reach of every intelligent stock owner.

Home Adornment.

As a prosperous country grows in age, the number of beautiful and attractive country homes naturally increases. England ranks above all others in perfection of its landscapes, and as a result, happiness, refinement, and contentment predominate in most of her homes. Homes must mean more than mere dwelling-places, and life more than a mere animal existence of constant drudgery of the physical being to the utter neglect of the mental and spiritual.

Too many farmers follow the example of the domestic animals for which they care. Eating, sleeping, and daily exercise of the muscular system form the monotonous routine of their lives. Not enough attention is given to those things which would inspire a happier, purer, and better life. When the wife or daughter asks for a few trees or flowers to embellish the front yard or to cheer the home when winter makes everything dismal and gloomy without, too frequently the husband replies that he has no time or money to spend on such unnecessary things. He thinks that his family can get along without flowers, music, papers and books, for these are simply things for enjoyment. Farmers who hold such views cannot be happy themselves nor make their families happy.—*Mirror and Farmer.*

THE RISE OF A KANSAS EDITOR.

BY SUPT. J. S. C. THOMPSON.

KANSAS editors are brainy, big-hearted, truthful fellows. Occasionally in the heat of a campaign their reputation for veracity is stretched to its utmost tension, and it seems another week of politics would result in the total disruption of the taut fabric. Repeated narrow escapes from story-telling have made our Kansas editors careless, and now and then one is encountered who is so forgetful of the proprieties that he is forced to explain to indignant readers that "the boys" did it without his knowledge. But in the main they are truthful men, and a careful analysis would reveal Truth with a big T as a predominant trait in 99.9 per cent of them. (The .1 per cent will of course understand this is not a personal reference, being but a figure, so to speak.) But Kansas editors have other virtues than this. They are honest with the honesty of their opinions; they are courageous with the courage of their convictions. They labor diligently to advance the interests of their respective communities, doing the work of a hundred men, without expectation or hope of reward except that which comes with the consciousness of duty faithfully performed. They are possessed of a literary ability as rare as it is pleasing to their readers, and the words, properly sorted, flow smoothly into the editorial hopper as long as the editor has the price of "a thousand" in his pocket. Were it not for the printers' bills, the Kansas editor would write enough matter to fill a magazine every week.

This command of language makes the Kansas editors objects of envy by their less-favored brethren in other countries (Kansas is a country), who know not the quality of the ozone from which the Sunflower scribes draw sustenance and inspiration; and it is with a feeling of wonder, not unmixed with awe, that they witness the meteor-like transition of the prairie newspaper writer from plain, commonplace editor to author—the writer of a book with pretty cloth covers and a beautiful gold side stamp, and the name of the writer in "caps" on the title page!

Ed Howe of the *Atchison Globe* established the precedent a good many years ago, when he found to his sorrow that he was working his printers to death in the effort to put all his interesting thoughts into type. But he had to write, and that highly entertaining book, "The Story of a Country Town," was the result of the overflow. Just why Howe stopped here, when he might have now occupied the high place held by Hamlin Garland as a realistic writer of American rural life, is a mystery only to be accounted for by the irresistible fascinations of journalism. The readers of the book will agree that Howe made a mistake in not building upon a foundation so skillfully laid.

But we have another author—a recent addition to the list—who gives promise of great things, if we may judge from his maiden effort. William Allen White, editor of the *Emporia Gazette*, is an illustrious example of what any bright, ambitious Kansas editor may become. He has written a book, and his brethren of the press have joined hands in saying all manner of pretty things about both book and author. The author has given his book the title of "The Real Issue," whatever that may mean. Two stories from the volume reprinted in the current number of *McClure's Magazine* leave no doubt as to their meaning, however. "The King of Boyville" is a picture of young life which will be recognized by every ex-king that reads it, and each and every one of them will swear that the portrait is his in the heyday of youth.

To the loyal Kansan, the other story, "The Homecoming of Colonel Hucks," appeals strongly. The picture has been the experience of thousands. It is painted by a master hand. A young couple, blessed with health and energy, made their wedding journey westward in a covered wagon, and set about the arduous though pleasant task of subduing the wilderness. They made their home. Children came to them and after a stay all too short were called away, one by death, the others by their mates, and Colonel Hucks and his good wife were left alone in the home they had made. The vicissitudes of life had been theirs; the path was rough in places. The Colonel had grown old and stooped and grizzled under the burden, and his faithful wife was bent and stout and somewhat uncouth, but the kind, motherly lines remained in her face. Theirs had been a busy life. They had never visited their old home in Ohio. Father and mother and many relatives were not there. Yet the Kansans wanted to go "back east" to the scenes of their childhood. For years they had talked of their old home, and their children had been taught that the place was second only to paradise. The buffalo grass and the blue-stem seemed scant

and bereft of beauty as compared to the luxury of Ohio's green fields.

The last child had married. The year following had been a prosperous one. On a perfect Kansas day in early October, Colonel and Mrs. Hucks started on their journey.

The rain had washed the summer's dust from the air, clearing it, and stencilling the lights and shades very sharply. The woods along the little stream had not been greener at any time during the season. The second crop of grass on the hillside almost shined in vividness. The sky was a deep, glorious blue, and the big downy clouds which lumbered lazily here and there in the depths of it appeared near and palpable.

The house would be lonely without them, they thought. They were loath to leave it when the time came.

"Think of it, father," said Mrs. Hucks, as she turned to descend from the porch. "Thirty years ago—and you and I have been fighting so hard out here—since you let me out of your arms to look after the horses. Think of what has come and—and—gone, father; and here we are all alone after it all."

Mrs. Hucks' eyes were wet, and her voice broke.

They arrived at their destination in the night. Mrs. Hucks and the women of the homestead refreshed old acquaintance in the bedroom and in the kitchen, while the colonel and the men sat stiffly in the parlor and called the roll of the dead and the absent. In the morning, while he was waiting for his breakfast, Colonel Hucks went for a prow down in the cow lot. It seemed to him that the creek which ran through the lot was dry and ugly. He found a stone upon which as a boy he had stood and fished. He remembered it as a huge boulder, and he had told his children wonderful tales about its great size. It seemed to him that it had worn away one-half in thirty years. The moss on the river bank was faded and old, and the beauty for which he had looked was marred by a thousand irregularities, which he did not recall in the picture of the place that he had carried in his memory since he left.

Colonel Hucks trudged up the bank from the stream with his hands clasped behind him, whistling, "O Lord, Remember Me," and trying to reconcile the things he had seen with those he had expected to find. At breakfast he said nothing of his puzzle, but as Mrs. Hucks and the Colonel sat in the parlor alone, during the morning, while their cousins were arranging to take the Kansas people over the neighborhood in the buggy, Mrs. Hucks said:—"Father, I have been lookin' out the window, and I see they've had such a dreadful drought here. See that grass there; it's as short and dry—and the ground looks burned and cracked and that, it does in Kansas."

"Uhm, yes," replied the Colonel. "I had noticed that myself. Yet the crops seem a pretty fair yield this year."

As the buggy in which the two families were riding rumbled over the bridge, the Colonel, who was sitting in the front seat turned to the woman in the back seat and said:—

"Lookie there, mother, they've got a new mill—smaller'n the old mill, too." To which his cousin responded, "Bill Hucks, what's got into you, anyway? That's the same old mill, where me and you used to steal pigeons."

The Colonel looked closer, and drawled out, "Well, I be dog-goned! What makes it look so small? Ain't it smaller, mother?" he asked, as they crossed the mill-race, that seemed to the Colonel to be a diminutive affair compared with the roaring mill-race in which as a boy he had caught minnows.

When the two Kansas people were alone that night, the Colonel asked:—

"Don't it seem kind of dwarfed here to what you expected it would be? Seems to me like it's all shrivelled, and worn out, and old. Everything's got dust on it. The grass by the road is dusty. The trees that used to seem so tall and black with shade are just nothing like what they used to be. The hill I've thought of as a young mountain don't seem to be so big as our bluff—back home."

Kansas was home to them now. For thirty years the struggling couple on the prairie had kept the phrase "back home" sacred to Ohio. Each felt a thrill at the household blasphemy, and both were glad that the Colonel had said "back home" and that it meant Kansas.

"Are you sorry you come, father?" said Mrs. Hucks, as the Colonel was about to fall into a doze.

"I don't know; are you?" he asked.

"Well, yes; I guess I am. I haven't no heart for this, the way it is, and I've lost the picture I had fixed in my mind of the way it was. I don't care for this, and yet it seems like I do too. Oh, I wish I hadn't come, to find everything so washed out like it is."

After the first day Colonel Hucks did not restrain his bragging about Kansas. And Mrs. Hucks gave rein to her pride when she heard him. Before that day she had reserved a secret contempt for the Kansas booster, and had ever wished that he might see what Ohio could do in the particular line which he was praising. But now Mrs. Hucks caught herself saying to her hostess, "What small ears of corn you raise here!"

The day after this concession Mrs. Hucks began to grow homesick. At first she worried about the stock; the Colonel's chief care was about the dog. The fifth day's visit was their last. As they were driving to the town to take the train for Kansas, Mrs. Hucks heard her husband discoursing something after this fashion:—

"I tell you, Jim, before I'd slave my life out on an 'eighty' the way you're doin', I'd go out takin' in whitewashin'. It is just like this—a man in Kansas has lower taxes, better schools, and more advantages in every way, than you've got here. And as to grasshoppers! Why, Jim West, sech talk makes me tired. My boy Bill's been always born and raised in Kansas, and now he's in the legislature, and in all his life, since he can remember, he never seen a hopper. Wouldn't know one from the sacred ibex, if he met it in the road."

When they were comfortably seated on the homeward bound train, Mrs. Hucks said to her husband:—

"How do you suppose they live here in this country, anyway, father? Don't any one here seem to own any of the land joinin' them, and they'd no more think of puttin' water-tanks and wind-mills around their farms than they'd think of flyin'. I just wish Mary could come out and see my new kitchen sink with the hot and cold water in it. Why, she almost fainted when I told her how to fix a dreen for her dishwater and things." Then, after a

sigh, she added, "But they are soon progressive here, nowadays."

They were overjoyed at being bound for Kansas. They hungered for kindred spirits. At Peoria, in the early morning, they awakened from their chair-car naps to hear a strident female voice saying:—

"Well, sir, when the rain did finally come, Mr. Morris he just didn't think there was a thing left worth cutting on the place, but, lo and behold, we got over forty bushel to the acre off of that field as it was."

Mrs. Hucks could stand it no longer. With her husband's cane she reached the owner of the voice, and said:—

"Excuse me, ma'am, but what part of Kansas are you from?"

It seemed like meeting a dear relative. The rest of the journey to Kansas City was a hallelujah chorus, wherein the Colonel sang a powerful and telling bass.

Colonel Hucks and his wife were happier that day than they had been for many a year, and the first glimpse of the big red stand-pipe in the country town added to their happiness. Then they drove slowly out into the country to their home. And as they rode they lived over their lives.

"It is almost sunset, father," said the wife, as she put her hand on her husband's arm.

Her touch and the voice in which she had spoken tightened some cord at his throat. The Colonel could only repeat, as he avoided her gaze:—

"Yes, almost sunset, mother; almost sunset."

"It has been a long day, William, but you have been good to me. Has it been a happy day for you, father?"

The Colonel turned his head away. He was afraid to trust himself to speech. He clucked to the horses and drove down the lane. As they came into the yard, the Colonel put an arm about his wife and pressed his cheek against her face. Then he said drolly:—

"Now, lookie at that dog, come tearin' up here like he never saw white folks before."

And so Colonel William Hucks brought his wife back to Kansas. Here their youth is woven into the very soil they love; here every tree around their home has its sacred history; here every sky above them recalls some day of trial and hope.

Here in the gloaming tonight stands an old man, bent and grizzled. His eyes are dimmed with tears, which he would not acknowledge for the world, and he is dreaming strange dreams, while he listens to a little, cracked voice in the kitchen half humming and half singing:—

"Home again, home again,
From a foreign shore."

Wages on the Farm.

Those who work by the month on the farm are apt to regard their circumstances with disfavor when they hear of the wages which labor of no higher grade commands in our large cities. But they will find, if they investigate the matter, that the farm laborer is as well paid as his city brother, and oftentimes a great deal better. In the city of Pittsburg at present all the carpenters and artisans of a similar trade that are wanted can be had for \$2 per day. Many can not find work at that. All over the Southern country good "common" labor can be had at prices from \$1 to \$1.50 per day. Those who have contracts for public works, such as railroads, pipe lines, etc., are overwhelmed with applications for work.

Wages like \$1.50, \$2, or \$2.50 per day, look pretty big to the man who the year round makes but 50 cents in cash, but they are not so big as they look. They are often inconsistent. A good many skilled laborers can work only a part of the year, but rent and other living expenses must be paid all the time. The city laborer must pay cash for everything, including many things which the farm hand is either furnished or permitted to raise for himself free of cost. Unless a workman of the \$2 grade has constant employment in a city like Pittsburg, he is very likely to find the balance on the wrong side at the end of the year. If he has a family to support, he must often live in cramped quarters, and must raise his children amid surroundings unfavorable to their physical and moral development. Contrast this picture with the man on the farm, who, if he has a family, is often furnished a house at little or no cost, is often permitted to raise his vegetables, dairy products, and meats, and is paid wages besides. Or with the single man who is kept, and if economical, has most of his wages at the end of the year. The country laborer who investigates the matter thoroughly will be slow to change his certain employment and inexpensive living for a place where the reverse is unfortunately too common.—*Mississippi Home and Farm.*

Guard the Water Supply.

The farmer should jealously guard his water supply—for house and stable. Disease and death lurk in impure water, and the ease with which the water supply may become contaminated is generally understood.

The result of chemical investigation of water supplies which is under way at the Illinois State University reveals the fact that nearly all wells in the towns and villages of the State are subject to the reception of surface drainage or sewerage. In very thickly populated districts, there are accumulations of animal refuse matter upon or within the soil, the drainage from which percolates through the substrata and reaches the wells. This refuse matter furnishes the nutrients upon which germs thrive and multiply, but the full magnitude of this menace to health can be realized only by recognition of the fact that disease germs pass for great distances through the soil, and may be contained in waters which from mere appearance and palatability are above reproach.—*Farmer's Voice.*

Calendar.

1896-97.
Fall Term—September 10th to December 29th.
Winter Term—January 5th to March 27th.
Spring Term—March 30th to June 10th.
June 10th, Commencement.
1897-98.
Fall Term—September 9th to December 18th.

To School Officers.

The College Loan Commissioner has funds now to invest in school district bonds at par. The law requires that no bonds be sold at par or less without being first offered to the State School Fund Commissioner and the State Agricultural College. Address C. R. Noe, Loan Commissioner, Leon, Kan.

GENERAL LOCAL NOTES.

Prof. Olin lectured before the Literary Society at Bala on Saturday.

Secy. Graham lectured before the county teachers at Riley, Saturday evening.

Several members of the Faculty were in Topeka last week on College business.

Capt. Cavanaugh returned to College duties on Friday after a second attack of the grip.

H. M. Thomas, Third-year, had charge of the class in Military Science during Capt. Cavanaugh's illness.

A. M. Ferguson, First-year, drops out on account of sickness. He hopes to return for the spring term.

Mr. McKee of Marysville visited his son in College on Thursday, in company of Mr. Finley, of Manhattan.

Minnie Spohr, Fourth-year, is kept from classes by the measles—the third case reported in College this year.

Miss Boucher of Clark, South Dakota, is visiting her cousin, Ida Rice, '95. She will enter College tomorrow.

Prof. Mason has received notice from Washington, D. C., that he is elected Vice President for Kansas of the American Forestry Association.

T. E. Thompson, Third-year, and B. R. Brown, Second-year, led the Cadet Band and College Orchestra respectively during the sickness of Prof. Brown.

The breaking of the press delayed last week's INDUSTRIALIST, and at this writing (Monday afternoon) the repairs have not arrived. Mr. Perkins, editor of *Nationalist*, kindly printed the edition of last week.

The wisdom of covering the steam pipes with asbestos last summer is made evident every day during the cold weather, three boilers furnishing all the necessary steam, where four were required last winter.

The students have organized an athletic association, with the following officers: O. E. Noble, President; G. G. Menke, Secretary; E. V. Hoffman, Treasurer; L. G. Hepworth, W. G. Tulloss, F. E. Cheadle, O. E. Noble, F. V. Dial, E. Poston, G. F. Wagner, Directors.

The U. S. Geological Survey has made arrangements with Prof. Hood for a continuation of the pump tests begun last fall. The results will be detailed in a bulletin by Prof. Hood about June 30th next. Geo. L. Christenson, '94, will take an active part in the work.

Miss Bertha Spohr [Third-year] is teaching today Monday in room five, central building, Mr. Smith being ill. The schools are fortunate in being able to secure the service of Miss Spohr, as she is prepared to do efficient work in any grade on short notice.—*School Notes in Mercury*.

The Faculty Club had a most delightful evening with Mrs. Lantz and Mrs. Winchip on Saturday evening at the home of Mrs. Winchip on Houston street. Each member had been asked to bring his favorite musical instrument, with a song, and the evening was spent in music, during which the company enjoyed hearing from such as could play or sing. Valentine day being so near, the gentlemen were asked to each write a valentine. These were distributed to the ladies and, after light refreshments, the valentines were read, when more music in the shape of songs closed the evening.

At the session of the Farmers' Institute, yesterday afternoon, Professor Nichols gave his illustrated lecture on "Lightning Conductors." It should have been listened to by every farmer in the County, and not only that, but by every property owner in the city. Professor Nichols is no advance agent for the lightning rod man. He went after that individual, and made it extremely doubtful whether or not any farmer who heard him will ever invest another nickel with the smooth lightning rod agent. Professor Nichols advised them not to invest money in rods, but that every man could be his own lightning rod agent, and at a very small cost could protect his property against the electric bolts.—*Hutchinson News*.

GRADUATES AND FORMER STUDENTS.

Sue Long, '96, is local writer for the *Manhattan Nationalist*.

Maude Gardiner, '93, spent Sunday with her parents in Wabaunsee County.

G. C. Hall, '96, is employed in the wood-shop in the absence of Foreman House, who is again sick.

Henry A. McLean, of Marion, recently appointed Assistant Supreme Court Reporter, was a student at the College in 1873. He is a successful attorney, and

stands high among the prominent young men of the State.—*Manhattan Republic*.

R. S. Kellogg, '96, is the author of a poem entitled, "Kansas" in the last *Students' Herald*.

A. M. Green, '86, was married in December to Miss Rachel Crowley of Adin, California, the home of both parties.

W. S. Arbuthnot, '91, was married, February 7th, to Miss Mary Stanfield of Belleville. Mr. Arbuthnot is a druggist at Republic.

S. I. Wilkin, Third-year in 1894-5, furnishes the INDUSTRIALIST with a good report of the Rooks County Farmers' Institute.

Pearl Wycoff, student in 1890-91, is to be married on February 17th to Hiram Colburn of Council Bluffs, Iowa, says the *Manhattan Republic*.

J. A. Scheel, '94, writes from North Dakota of a big hunt in the "Bad Lands," in November, with a bigger blizzard following his return.

H. M. Gikerson, Second-year in 1890-91, and later a graduate at Ann Arbor University, is taking post-graduate work in assaying at this College.

Dr. Quayle, pastor of the Independence Avenue M. E. Church at Kansas City, has received a call to a New York pulpit. Dr. Quayle was a student in 1879-80.

Nellie J. Murphy, '85, is one of the graduating class of the Colorado Training School for Nurses. The commencement exercises were held at Denver, February 11th.

H. M. Cottrell, '84, superintendent of Mr. Morton's Ellerslie Stock and Dairy Farm at Rhinecliff, N. Y., is on the program of a farmers' institute to be held under the direction of the New York Agricultural Experiment Station at Rhinebeck, February 26th. His address will on "Poetry in Farming." Mr. Cottrell sends the College sundry items of interest concerning the Ellerslie farm.

Laura G. Day, '93, sends a Menominee (Wis.) paper giving a full account of the recent fire which destroyed the Stout Manual Training School, in which she is instructor in domestic arts. The loss of this institution is a severe blow to Menominee and to Mr. Stout, the founder and promoter of the school. Temporary quarters have been provided, but it has not yet been decided when the school will be rebuilt.

The Domestic Science Building: Reasons For Urging It Now.

The Domestic Science Department of this College has been at work longer and done more work than any similar department in other agricultural colleges. Yet its recognition by the State in the way of appropriation is limited to \$500 received some twenty years ago. The department was given rooms, of course, in the College building; but those rooms for the past five years have been overcrowded, along with the general crowding of the whole College. For the past two years, it has been almost impossible to provide for the large classes, and now we are actually driven into corners and halls.

The two women who have charge of this Department, who have been at work for twelve to fifteen years, and have made its success, have fewer facilities now for their work, considering its amount, than most of the similar departments other institutions afford.

There is no propriety, if we had the funds, in attempting better equipment so long as there is no satisfactory place for the equipment.

The funds given by the Nation, under act of Congress of 1890, are not available, under the terms of the act, for this department. Nothing can now be done for it without the aid of the State.

The necessity is pressing, and has been for years past. Four years ago this waited because of more general need provided for in the Library and Science Hall. Two years ago, this waited for better times, the need being conceded. To wait longer now is to greatly diminish the usefulness of the College to more than one-third of its 750 students, for which third the State has never given more than the \$500 named above. Is it not both economical and politic to make this moderate appropriation for a specific and recognized need, which touches the very home life of the people?

We believe, if the farmers could be reached directly, and be asked to contribute the fraction of a bushel of corn apiece which would equal the appropriation asked, the favor would be accorded at once.

Professor Georgeson May be Appointed.

A special dispatch from Washington to the *Kansas City Journal*, under date of February 14th, says:—

"While the prevailing opinion is that J. H. Brigham of Ohio will be selected as Assistant Secretary of Agriculture, some of the Kansas members at the House have hopes that C. C. Georgeson, of their State, will be appointed. While the office is filled by the President, it is the custom to consult the Secretary as to preference before making the nomination, and Professor Georgeson has been strongly urged as one peculiarly fitted for the place. He is Professor of Agriculture at the Kansas Agricultural College at Manhattan.

"He is a Dane by nativity, and was educated at

the Michigan Agricultural College. He was for several years engaged in agricultural work in Japan, going from there to the Kansas Agricultural College. A few years ago he was sent to Denmark by Secretary Rusk to investigate the dairy industry in that country. His name has been brought to the attention of the President-elect as well as the prospective Secretary of Agriculture, ex-Congressman Wilson of Iowa."

Notes from Farm Department.

Regent Noe has this week resented the College with a very fine Poland China gilt. She was bred by Mr. W. S. Tucker of Leon, Kansas, and is a pure-bred animal. She is nine months old, and weighed on arrival 238 pounds. She is a very well-bred animal, and we expect great things from her. The Farm Department has also been enriched by the purchase of two Poland China gilts from the famous herd of Mr. R. S. Cork, Wichita, Kansas. They are likewise excellent young sows. We expect the quality of our Poland Chinas to be raised to the top notch hereafter.

The Students Petition the Legislature.

For the last few weeks rumors have reached students that the Legislature has determined to cut down the appropriations for the College and that some of the most needed improvements would not be provided for at all. Realizing the urgent need of improvement, the students determined to use their influence in securing the passage of the bill providing for the erection of a Domestic Science Hall.

At 1:30 o'clock Saturday afternoon a mass meeting was called for the purpose of considering the advisability of sending a delegation of students to Topeka to use their influence with the various members of the Legislature to secure the passage of the bill. H. M. Thomas was chosen chairman of the meeting. Mrs. Kedzie stated the condition in which she found our affairs at Topeka. After a few remarks by some of the students, upon motion of the assembly the chairman appointed a committee of five to select a delegation to represent the College at the Legislature. The committee presented the following names, which were accepted by the assembly: R. W. Clothier, W. L. Hall, L. G. Hepworth, F. Russell, and H. M. Thomas. A committee of five was appointed to draft a petition, which they did as follows:—

"To the Honorable Members of the Kansas Legislature:—

"Dear Sirs:—Having learned that the sentiment existing in the present Legislature is unfavorable to granting any appropriation for building a Domestic Science Hall at the Kansas State Agricultural College, and realizing the urgent need of such a building, we, a committee of the students, take this means of presenting to you a petition.

"Owing to the crowded condition of the Cooking and Sewing Departments, it is impossible to do creditable work. In the Cooking Department, the lecture room is not on the same floor with the laboratory. The basement hall, which is dark and uncomfortable, is used for a dining room. The fact that seventy-one now work in rooms planned for twenty is sufficient evidence of the overcrowded condition of the Department.

"Similar conditions exist in the Sewing Department. Rooms are now occupied by double the number for which they were planned. Post-graduate, advanced, and beginning classes are obliged to work together. Water needed for washing and pressing must be carried up from the basement. Other Departments which are over-crowded need the rooms which will be vacated by these Departments.

"We realize your desire to conduct the administration of public affairs in an economical manner; but we question the economy of hampering educational institutions, and we earnestly beg that you consider favorably the passage of the bill providing for the erection of the Domestic Science Hall. Respectfully submitted,

"EMMETT V. HOFFMAN,
"ROGER W. BISHOP,
"MARK WHEELER,
"MAGGIE CORRELL,
"EMMA FINLEY,
"Committee."

Rooks County Institute.

Rooks county is situated in the northwestern part of the State—in the semi-arid region. The stories that are told, in the older settled portions of Kansas, makes one naturally wonder what an institute would be like.

This year in many ways is the hardest of the series of "off" years the people have experienced. Farm products have been a partial failure, and 9 to 11 cents is the price received for corn.

A poultry show was held in connection with the institute. The exhibits were numerous—about fifty coops of over twenty breeds. The display was first class, and the fowls shown would have done credit to a much older country. Poultry products are no small item in the way of making a living when crops fail. The "pets" were numerous—the white mice and badgers attracting most attention.

Both days of the institute were cloudy and threatened storm; still the large Opera hall was comfortably filled with an intelligent body of farmers.

Each paper was open for discussion, and frequently lively debates took place.

"Special or Diversified Farming—Which?" by Frank Shutts. He referred to the disastrous results following extensive wheat raising, even seriously

questioned whether it pays to raise much wheat. He said we do not agree with our friends in the East who think this country should be abandoned. Mr. S. made a strong plea for diversified farming. He believed we were all drifting that way, though perhaps unconsciously. As evidence, he called our attention to the fact that cane, millet, alfalfa, and the non-saccharine sorghums were now a product of every farm. He has an irrigation plant, and his great variety of vegetables make us believe he practices what he preaches.

"What I know about subsoiling," was ably handled. The increased yield satisfied the gentleman for his expenditure of time and labor. This matter will receive more attention in the future than it has in the past.

"Music for farm and fireside" was the most popular topic presented. McIntire had his family there and furnished the music for the two days session.

Prof. Hood's lecture on "The State Agricultural College," illustrated by the stereopticon, was delivered at the night session. The largest audience that ever greeted a Manhattan representative was Prof. Hood's. The people were told and shown what the College is, and many a young person resolved that night to attend. All were greatly pleased with what they saw and heard, and wished our Legislature might do more to aid the College in a financial way.

"My way of raising a corn crop" caused a good-natured clashing of opinions. The author advocated plowing listed ground once in three years, to which all agreed. But much of raising corn, kind of seed, etc., indicated everyone had a way of his own.

"The Farmer's Dairy Cow," by F. C. Burtis, was especially appreciated. So many families find the cow assists materially towards supplying their needs. He described the ideal cow. Her care, feed, and other wants were treated at length. He did not advocate a certain breed, but urged improvement. A suggestion here, a warning there, a statement elsewhere, and the lively part he took, made Mr. Burtis a most valuable helper.

President Wells stated the next two topics were of a political nature. He believed both to be profitable for our consideration, if we could discuss them on their merits; but, if we had to lug in our partisan opinions, it would be out of place.

For lack of space, mention must be made of "How to Maintain the Fertility of our Soils," "Alfalfa, Its Agricultural Value in Range and in Culture," and "Honey Bees."

Nearly every person appeared with manuscript in his hands. This is a commendable plan; for the matter is presented in a clear manner and in much less time. We must pronounce this twelfth annual meeting a decided success. S. I. W.

COLLEGE ORGANIZATIONS.

Student Editors—R. W. Bishoff, O. E. Noble, Wilhelmina Spohr.

Y. M. C. A.—President, S. J. Adams, '98; Vice-President, G. D. Hulett, '98; Recording Secretary, O. S. True, '99; Corresponding Secretary, J. M. Pierce, '98; Treasurer, R. B. Mitchell, '99.

Y. W. C. A.—President, Emma Finley; Vice-President, Maggie Correll; Recording Secretary, Ethel Wolfley; Corresponding Secretary, Mary Waugh; Treasurer, Lucy Cottrell.

Alpha Beta Society—President, E. Shellenbaum; Vice-President, Alice Shofe; Recording Secretary, Eva Philbrook; Corresponding Secretary, W. A. McCullough; Treasurer, F. J. Rumold; Critic, J. M. Westgate; Marshal, L. B. Jolley. Meets every Saturday afternoon in south Society hall.

Ionian Society—President, Gertrude Lyman; Vice-President, Mary Norton; Recording Secretary, Dora Shartel; Corresponding Secretary, Maude Barnes; Treasurer, Nannie Williams; Critic, Winifred Houghton; Marshal, Mary Waugh. Meets every Saturday afternoon in north Society hall.

Hamilton Society—President, L. G. Hepworth; Vice-President, V. Maelzer; Recording Secretary, Wm. Anderson; Corresponding Secretary, G. G. Menke; Treasurer, B. H. Shultz; Critic, W. L. Hall; Marshal, A. F. Kinsley; Board of Directors, A. C. Smith, S. J. Adams, H. M. Thomas, G. F. Farley, F. O. Woestemyer.

Webster Society—President, R. W. Bishoff; Vice-President, J. E. Tremblay; Recording Secretary, Earl Butterfield; Corresponding Secretary, E. B. Patten; Treasurer, M. H. Horn; Critic, F. H. Meyer; Marshal, G. W. Owens; Board of Directors, S. Dolby, F. Zimmerman, G. G. McDowell, L. P. Keeler. Meets every Saturday evening at 7:30 in south Society room.

February 6th.

Ionian Society.—Vocal solo, Lottie Eakin; Miss Correll led in devotion; reading, Miss Clare Long; piano duet, Tacy Stokes and Gertie Rhodes; second chapter of continued story, Miss Houghton; parliamentary Quiz, Jessie Bayless; vocal solo, Jennette Perry; Oracle, Amelia Pfeutze; piano solo, Maude Barnes. A few visitors from town were present. We enjoy having our friends visit us, and they may always be assured of a hearty welcome. B.

February 13th.

There being no Chapel exercises, the Alpha Beta Society met and was called to order at 2 o'clock by President Shellenbaum. J. F. Crowl, as music committee, introduced the newly organized A. B. Band, which furnished some good music and insured us that we would not lack good music in the future. Lucy Cottrell led in prayer. Mr. Owen was irritated to membership. In an interesting and well-written original story, Sophronia Channell told of a typical case in which the sad factors of want and suffering caused many to seek eternity's shores as their only relief. Our patriotism was aroused by a select reading "Signing the Declaration of Independence," by A. C. Tannehill. "Has Music more Power over Man than Oratory?" as the question for debate, was affirmed by Jennie Tappin and Ella Weak, and denied by Malva Avery and A. B. Conner. All the speakers had the subject well in hand, and they referred their listeners to instances in both sacred and profane history as proof on either side. The next number decided in favor of the negative. The next number was a male quartet composed of Messrs. Hulett, J. F. Crowl, Amos Cottrell, and W. C. Crowl. The Gleaner, adorned in Sophomore colors, was read by its editor, H. D. Orr, and proved to be an excellent edition. The Society then took a ten-minute recess, after which the A. B. Band played "Home Sweet

Home." The Society showed its appreciation by its hearty encore, to which the band responded with another selection. A. B. Dille next gave a discussion upon "The Siberian Exile System," which was instructive to all. Messrs. Martin and Thackery appeared as "Gypsies" and told the fortunes of a number of the members, including their success or failure in examination. The usual business was then taken up and disposed of, and the Society adjourned. W. A. M.

February 13th.

At 7:30 President Bishoff called the Websters to order. R. Cook led in devotion. The question, "Resolved, That the disorder among our students is due more to our conditions than to College government," was debated affirmatively by M. Wheeler and F. Habiger; negatively, by J. E. Tremblay and J. L. Postlethwaite. The debate was interesting, and of course applied directly here at home. C. V. Bunch rendered a pretty piano solo, F. H. Meyer being music committee. A. G. Wilson read one of Whittier's poems, "The Demon of the Study," which was highly appreciated. The news were presented by W. T. Pope, the latest being that "Queen Lil" is visiting friends and relatives in Washington. L. E. Potter, C. H. Lehmkuhl, and G. Martinson each gave three-minute speeches on topics which were up to date and interesting to all. A quartet, consisting of F. Craik, R. McKee, C. Masters, and L. McLaren, closed the program with a good selection. The all-wise critic then made his little speech, after which the unfinished and new business was taken up. The old question of issuing tickets to the annual was discussed, but no vote taken. E. B. P.

Horticultural Society Program for 1897.

MARCH 25—At Horticultural Hall.

"Lettuce Culture,"..... W. H. MOORE.

"Fungus Diseases of Garden Vegetables,"..... A. S. HITCHCOCK.

"Vegetable Gardening,"..... WM. BAXTER.

APRIL 22—At J. T. Willard's.

"Aquatics for the Amateur,"..... J. S. C. THOMPSON.

"Japanese Floriculture,"..... MRS. GEORGESON.

"Trees,"..... L. R. ELLIOTT.

MAY 27—At E. A. Popenoe's.

"Hardy Garden Flowers,"..... E. A. POPENOE.

"The Value of Vegetables to the Cook,"..... MRS. KEDZIE.

JUNE 24—At R. D. Parker's.

"What I Saw of Horticulture in California,"..... REV. TUNNELL.

"Reminiscences of Horticulture,"..... PRES. FAIRCHILD.

"What Boys and Girls Can Do,"..... MRS. SAM KIMBLE.

JULY 22—At William Baxter's.

"A Training for the Useful in Horticulture,"..... I. D. GRAHAM.

"The Farmer's Vineyard,"..... I. JONES.

"Possibilities of the Kansas Garden,"..... MRS. R. H. KIMBALL.

AUGUST 26—At I. D. Graham's.

"Profit in Horticulture,"..... W. J. GRIFFING.

"Autumn Insects of Economic Importance to the Horticulturist,"..... F. A. MARLATT.

SEPTEMBER 23—At Sam Kimble's.

"Composition of Fruits, Their Food Value, and Their Exhaustion of the Soil,"..... J. T. WILLARD.

"Manhattan City Park,"..... J. D. WALTERS.

OCTOBER 28—At J. D. Walters'.

"Nuts That Might Be Grown in Kansas,"..... GEO. L. CLOTHIER.

"Notes from the Garden,"..... T. C. WELLS.

NOVEMBER 24—At Horticultural Hall.

"Winter Work for the Entomologist,"..... BERTHA KIMBALL.

"Forestry for Waste Ground,"..... T. W. MORSE.

DECEMBER 23—At Horticultural Hall.

"Use of Hot-Bed Sash in the Kitchen Garden,"..... S. C. MASON.

"Ups and Downs of a Fruit Grower,"..... SAM KIMBLE.

Election of officers.

Accessions to the Library.

The Liquefaction of Gases, Papers by Michael Faraday.

State Insane Asylums of Kansas, 1880.

Kansas Charitable Institutions 1881-2, 1883-4, 1885-6, 1887-8, 1891-2, 1893-4, 1895-6.

Foreign Commerce and Navigation, Immigration and Tonnage of the United States, 1892.

United States Census Report, 1890, Crime, Pauperism, and Benevolence.

Commissioner's Report of Fish and Fisheries, 1889-1891.

Garden and Farm Topics, Peter Henderson.

Coin's Financial School Up to Date, Harvey.

Report of New York Entomologist 1896, Lintner.

Department of Agriculture, Messages and Documents 1896 (5 copies).

Congressional Directory, January 22, 1897.

PAMPHLETS.

Eighth Annual Meeting of the Association of Economic Entomologists, 1896.

Freight Charges for Ocean Transportation of the Products of Agriculture.

Home Training.

It is related of the boys who wrecked a railroad train in New York for purposes of robbery, and, having killed the engineer, are now held for trial on the charge of murder, that an investigation shows them to be of respectable parentage; that all had been partly educated, but that they had been allowed to run wild, receiving no home training, their parents being careless or neglectful of them. That is the home story of

all the vagabonds and criminals in the country, perhaps, except those who have come of criminal stock and have been trained to prey upon their fellows. The absence of discipline and home training may produce as evil effects as positive education to a criminal career. The indulgent parent who permits his children to grow up lazy, neglectful of duty, self-indulgent, and free from control runs the risk of having them reach early manhood devoid of moral principles and incapable of maintaining themselves by honorable employment.

In some respects this is more to be dreaded than lack of moral principles, for the latter may be developed in later years. But the inability or unwillingness to work for one's maintenance exposes the victim to great temptations to crime—temptations that are sometimes strong enough to overcome moral teachings and the dread of the law. The young man who knows no trade, who is lazy and indifferent and unaccustomed to submit to discipline, can scarcely obtain employment, or if, through the favor of friends, he is given a situation, can scarcely hold it. His idleness brings him into association with kindred spirits, and one among the number is tolerably sure to suggest an easy way out of their difficulties by the commission of crimes made familiar to them through the perusal of flash literature. The wonder is not that boys thus situated are led into the commission of crimes, but that so many escape from the temptation and after some years of idleness settle down to a life of honest industry.

It is no easy task to train a boy in the way he should go; many disappointments come to parents who have honestly endeavored to give their children good training and have neither been ignorant nor neglectful, but there are some essential principals that can and should be followed to keep boys from going to the bad. They should be made from the first to respect authority, and should not be allowed to acquire lazy habits, but be required to do their proper share of household work. To keep them from evil associations, they should be urged to bring their friends to their own home, and should not be allowed to "run wild," especially at night. The teaching of moral principles is, of course, the duty of parents, who should always keep an eye upon the literature their boys read, endeavoring to inspire them with a taste for wholesome books, not necessarily instructive works always, but novels whose influence is healthful. The best that can be done, perhaps, is to encourage the formation of good habits by interesting the youth in something that will either be of benefit to him or at least keep him out of mischief.

Two boys who do not greatly differ in disposition, moral principles, or intelligence, part when they are fifteen or sixteen years of age, one to become a criminal, the other to grow into a respected member of society. Countless influences, some of them unseen, have had their share in determining the course of each, but the most potent influences are tastes, habits, associates, and temptations. Tastes and habits can, to some extent, be formed by the watchful parents; the boy can also be guarded against bad associates, and if taught to work cheerfully and to earn his living by labor, he will be freed from temptations to commit crime. Nothing has been said of the influence of moral teaching, but that is because moral precepts, in themselves, have little influence in directing one's career. At best, they serve as guides to moral principles, which grow up with the boy and become a part of himself. The important thing is to look after his environment in the years when moral principles are being formed.—*Baltimore Sun.*

The National Armenian Relief Committee recently forwarded to Turkey \$35,000. They have just received a cable message from the International Committee at Constantinople, of which the British Ambassador is Chairman, acknowledging the remittance, and stating that the funds in hand are entirely inadequate to meet the awful suffering and destitution, and that careful investigation has shown that not less than 40,000 children have been made orphans by the late massacres. These "Wards of Christendom" can be easily saved from starvation or debasing enslavement in Moslem homes, and can be cared for at the rate of a dollar a month, but thousands will perish before Spring unless generous gifts are sent at once to Brown Brothers & Co., 59 Wall Street, New York, who are the authorized treasurers.

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CONSERVATISM IN EXPERIMENT.

BY PRES. GEO. T. FAIRCHILD.

A NATURAL anxiety for immediate and striking results from experiments in agriculture is not to be complained of, since it expresses the unrest of farmers under trying conditions of climate, and with disturbed market. It seems as possible to apply to troubled agriculture a soothing plaster, as to adopt a patent remedy for lumbago. In both cases a good supply of printers' ink will temporarily fill the bill; for faith in any undertaking will bring large results of some kind.

Nevertheless, the student of nature in agriculture, as in every other field of inquiry, knows that hasty conclusions, however extensively accepted, lead to no end but disaster. It is the duty of such students to lay so broad and deep their plans of investigation that the answers to their questions may at least be clear directions toward the true solution of the problems studied. Anything like enthusiasm for results before the results are reached blinds the investigator to the facts of most importance in the search.

All the methods of science since the days of Lord Bacon have depended upon the closest scrutiny of details, the most definite exclusion of conjecture, and the multiplication of witnesses in variety of experiment. Faraday never published a discovery till he had exhausted the range of devices for contradicting his conclusions, and so was not successfully contradicted by others. Newton waited thirteen years to establish the data for testing the law of gravitation, although he had his theory perfected on the mere suggestion of the falling apple. The world's motion is all along the line of intelligent searching after truth, with the assurance that "art is long;" the world's commotion is mostly from "booming" untested ideas, and making a fad of panaceas.

The Kansas Experiment Station has attempted in all its history to maintain the spirit of investigation at every point. Again and again the cry has come, "Why doesn't the Station push this enterprise or that?" The answer has always been, "We are in existence to test and record, and publish the truth, not to push enterprises, or to stand as advocates of enterprising theorists." In this spirit alone, sound judgment can be maintained; for the advocate of a theory is as sure to twist his facts to suit his theory as the plea of a lawyer bends the testimony to meet his client's needs.

This station began its work in April, 1888, and is just issuing its ninth annual report. In that time it has published sixty-three bulletins, bristling with facts about many phases of agriculture and horticulture. Its publications cover pages of condensed information such as any thinker needs for a clear and distinct knowledge of subjects under inquiry. That these facts do not settle all the questions under discussion only shows more distinctly the need of a careful conservatism in all investigations. That some of the accumulated data have not yet been published proves the care with which such important interests are guarded against misleading guesses at truth.

In these nine years there have been many "booming" interests in Kansas. Sorghum for sugar was the fad at the start, with every newspaper filled with promises of revolutionizing agriculture on Kansas plains by construction of sugar mills and the raising of cane. The College and Station were urged by men of strong influence to push the enterprise by building a mill and teaching all students the art of money-making through sorghum culture. Exact and clear tests of sorghum growth were made, and culture continued to develop the cane to larger sugar content; but the Station was saved from collapse with the sugar boom, to maintain the larger use of sorghum as a forage crop.

The real estate boom of Western Kansas was met by the same careful scrutiny of facts, though the representatives of the Station suffered abuse for their conservatism. It is pleasant to know that the same conservatism saved the College funds from being wasted in the bonds of western counties.

Beet-culture for sugar has several times risen to the surface as a means of renovating agriculture, with promises of a fortune to the State which should first take it up. But certain settled principles led the Station Council to confine its efforts to establishing certain fundamental facts as to quality of beets likely to be raised under general conditions of soil and climate here. To push beet-raising without such data would be criminal. The data crushed the

incipient boom for the time, and ought to stand in the way of its immediate revival.

The irrigation boom, investigated in the same spirit, dwindles to the profitable building of a home in the midst of broad acres of prairie to be utilized in stock raising and careful economical provision against drought in fruit raising.

The same conservatism has kept the established truths of agriculture as the basis of improvements. The sure exhaustion of virgin soil by cropping without fertilizing by stock or green manuring; the need of systematic rotation of crops; the essential advantage of mixed farming; the necessity of some grass crop and the advantages of alfalfa; the superiority of forage crops in dry years and dry places; the necessity of utilizing the coarser products on the farm by stock; the waste of careless feeding with exposure to storms; the importance of selection in breeding of both animals and plants; the settled principles of tillage as to seed bed, culture, and mulch; the possibilities of the silo, and the advantages of balanced rations,—all have been urged through every means of reaching the farmers. At the same time the pioneer farmer has been urged to learn his lessons at the least possible expense by beginning with the alphabet of each movement, not trying at once to spring from the raw prairie to the most complete farm. Revolutions in agriculture ought not to be expected, and even the attempt to inaugurate them brings waste and often disaster. The true evolution of both general agriculture and specific practice will conserve all past knowledge while it strives after what is yet unknown. Conservative rather than speculative all genuine farm experiments must be.

GARGOYLES AND DRAGONS.

BY JULIA R. PEARCE.

UGLINESS has its use, I suppose, though it be nothing more than to emphasize beauty. And in nature some sort of excuse can usually be found for nearly every sort of ugliness. But in some of man's creations it is hard to find any excuse for them. Ugliness, if horrible enough, has a certain fascination, akin, I suppose, to that which makes people go to witness a hanging. The horrible heads and distorted features seen in the decoration of public buildings seem to have no excuse for their existence. To some, these horrible features show strength, and others admire anything original, regardless of its use or lack of beauty, the product of a creative imagination run wild. A writer on art topics says: "To the unrefined and uneducated, no object conveys so perfect a notion of mirth as an ugly and distorted face," and yet artists (?) in this enlightened 19th century decorate our public edifices with the heads of animals such as "were never seen on sea or land." The water of our fountains, clear and pure, is vomited up out of dragons' mouths. Some beautiful structure, stately and graceful in its outlines, has for gargoyles some horrible creature which spews the water out in the most sickening manner. For door knobs we have lion's heads with mouth open and tongue sticking out. This tongue you are kindly asked to pull or twist if you want to be admitted to the house. Boat hooks are composed of some horrible head with a large ring run through the tongue.

Just what effect this sort of representation has on the average child it would be hard to say. The idea that every child is by nature a little savage or fiend until trained out of it may be a truth reversed. They may absorb their savagery from the representations around them. I will admit I have seen children who never saw any of these things who still showed signs of this savagery, but then they might have inherited it.

A prominent divine once gave a sermon, or lecture, on the subject of church architecture and ornamentation (?) in which he gave an explanation of the finishing off of an otherwise beautiful building with such fantastical ugliness which, to us ignorant, seemed to mean nothing. He said the inside was always made beautiful, and this meant that the beautiful was favored and taken inside, while the devil, his imps, and all his tribe were turned outside, where they sat on the corners and served as gargoyles, and spent their time running their tongues out at people as they passed into church. In other words, all wicked and unbeautiful things were outside the church; all of which is a very learned explanation, it seems to me. But I have seen these horrible faces find their way inside. His pulpit chair had for arm-rests crea-

tures who, judging from the expression of their faces, objected seriously to his sitting in that chair.

There are so many beautiful, graceful designs in nature's workshop that it would hardly seem necessary to resort to these ugly creations unless there was some real call for them. There are many ways in which water from a drinking fountain can be presented other than those cited. The writer saw in Canada many small fountains along frequented ways that represented the water as gurgling out from among rocks, cool and inviting. On the rocks or on the cup attached was sometimes inscribed the kindly invitation to take a cup of cold water and "Drink to the health of Her Majesty the Queen," which she gratefully did, being for the moment a loyal British subject and never once thinking of Grover Cleveland. I have seen fountains in city parks, I shouldn't like to mention any in particular, where the idea that the fountain should furnish water to drink was not in the plan. I can see how on hot afternoons walking through the park one might be grateful to a dragon or any other horrible device that would aid to obtain a drink of cold water. But it would seem that only under such circumstances could one find excuse or satisfaction in the horrible grimacing creatures sometimes serving as ornaments in so many different ways.

SOIL TESTING.

BY PROF. J. T. WILLARD.

ONE of the commonest remarks of the average well-informed visitor at the chemical laboratory is something like this: "I suppose you teach the students how to analyze soils so that they can tell what kind of crops to grow on them, do you not?" It becomes necessary, then, to explain that our students take chemistry only a year, and in that time cannot possibly acquire the advancement such work demands. The question is an indication of the popular belief; nevertheless, I think it is true that no chemist would analyze soils for that purpose for his own use.

Chemical analysis ascertains the proportions of each of the various constituents present in a soil, but tells little of their availability. In the best soils only a fraction of one per cent of the total weight of the soil penetrated by the roots of crops is available as plant-food. It is the variation in composition of this relatively small amount that determines the adaptability of the soil to the differing requirements of the various crops. These variations are covered up in a chemical analysis by the preponderance of inert constituents. For example, a soil might contain potash in considerable amount in the form of small grains of feldspar, but of this only that small amount which annually weathers to soluble forms would be available. There might be present other available potash salts also. A chemical analysis could not distinguish between these, as no solvent has yet been devised that satisfactorily imitates the absorbent and solvent power of the roots of plants, especially as there is no reason to believe that the various species of plants are uniform in this respect.

The availability of the constituents of a soil is largely dependent upon the size of its particles, and mechanical analyses of soils have largely superseded chemical analysis. Other things being equal, the soil that has the greatest percentage of silt, or exceedingly fine particles, will possess the greatest amount of available plant food. Mechanical analyses of soils present difficulties that have received the attention of many eminent investigators, but which cannot be said to have been satisfactorily met as yet, and quite likely they never will be. Probably the best laboratory investigation of a soil that is possible at present would consist in as perfect a separation of the soil as possible, into several fractions by mechanical analysis. In this, the relative proportion of the different sized particles would be ascertained. Then each of these fractions should be analyzed chemically. The relative availability of the different constituents could then be estimated with considerable accuracy. The information would doubtless be valuable in a scientific study of soils, but the method is scarcely practicable for general application to the needs of a farmer. Take our bottom lands, even, and the variation in going forty rods, and often a less distance, is great enough to make the results obtained with soil from the one spot nearly useless for application to the other. It is well recognized by thoughtful investigators that this lack of homogeneity in soils is one of the greatest drawbacks to plat experimentation. It is manifestly impossible for a farmer to have a half dozen or more such analyses made of the soil of his farm; some other means must be employed if yields are falling off, and he wishes to fertilize the land with the constituents most needed, and avoid useless ex-

penditure for elements already present in abundance. This will soon be a vital question with many a Kansas farmer notwithstanding the great original fertility of much of our soil. The small percentage of available constituents cannot stand unceasing drafts with no returns.

If, then, a farmer has neglected to maintain the fertility of his fields by general manuring until diminishing yields, even in favorable seasons, warn him, how can he diagnose the case and prescribe the proper remedy? The case may be approached in a practical way by an intelligent farmer in at least two ways. One method would involve a careful observation of plats of several different kinds of crops on the land the same season. As crops vary in their ash requirements, a study of the relative thriftiness of a variety of crops, coupled with a consideration of the ash requirements of each, might enable one to ascertain, with considerable accuracy, what elements are lacking in the soil.

A method which is more direct and leads to certain conclusions may be called testing by unbalanced fertilization. Let a series of plats be laid off, repeated several times, if possible, in various parts of the field. The plats need not be large if the series is repeated several times and measurements of area and products accurately made. Let all the plats be prepared, seeded, and treated as nearly alike as possible except as to fertilizers applied. The crop selected should be one which makes a fairly well-balanced demand upon the soil, such as corn or oats. Now, let one plat in each series remain unfertilized, while the others are given the following fertilizers in suitable quantities: (1) potash salts alone, (2) phosphates alone, (3) nitrogen compounds alone, (4) potash with phosphates, (5) potash with nitrogen, (6) phosphates with nitrogen, and (7) potash, phosphates, and nitrogen together, i. e., a complete fertilizer. It will rarely be necessary to take lime into consideration, especially, in this State. All the plats receiving a given element must receive equal quantities of it; thus, if the plat receiving potash salts only, is fertilized at the rate of 200 pounds of potassium sulphate per acre, then each of the other plats receiving potash should receive 200 pounds of potassium sulphate per acre; and so with the phosphates and nitrogen.

The method of interpretation of the results is almost obvious. If the plat treated with potash alone does better than the unfertilized plat, and as well as the one receiving the complete manure, it is evident that the soil is deficient in potash, but has no lack of the other two substances. If, however, the potash and nitrogen give as good results as the complete fertilizer, and a better result than either of the other plats, a deficiency of these two substances will be indicated, with a sufficiency of phosphates.

This method of soil testing, or some modification of it, will have to be practiced by all who are unwilling to apply a complete fertilizer, and trust to luck to protect them from useless expenditures.

A PLEA FOR SIMPLE ENTERTAINMENT.

BY MRS. E. E. WINCHIP.

TRUE hospitality does not consist in merely feeding and amusing people at our own homes, or in dealing out so much entertainment for so much received, but instead, the cordial, heartfelt welcome of friends to our tables and about our firesides.

The parlor, with its heavy curtains and straight-backed chairs and sofas,—as uncomfortable as they possibly could be,—is a thing of the past, and in its stead we have the cheerful, well-lighted, and comfortably furnished home-like rooms where we can receive our friends. The guest chamber is no longer the stately affair of our ancestors; it is a cheerful, well-lighted apartment, furnished with all the little conveniences,—not necessarily expensive furnishings, but the kind that will make the guest feel that he has entered a friend's home to be one with them.

They who are filled with true hospitality are ready to receive their friends at their every day table with as good as their board affords, not making the visitor feel as if they were putting on company manners and company politeness with their delicate china. One person may say, "I have done all that I know how to do; I have seen that my house was in perfect order, my menu correct," all the while giving her guest the impression that she is doing a duty in preparing a plenty of digestible food. Another is continually apologizing for the little she can do. No sympathy should be wasted on the woman, tired and worn, trying to entertain just because she thinks it a duty to society. The true meaning of the word entertain is to amuse, to interest; and hospitality should go hand in hand with entertaining.

Fashion issues new decrees for lunches, dinners,

and teas, as well as for dresses, and every housewife is, or should be, interested in the beauty of her table. The linen should be of snowy whiteness. The decorations need not be elaborate; oftentimes the more simple ones are the most effective. Flowers of one kind are much prettier than a variety,—a dish of ferns, a growing plant, or a basket of fruit. There is no time in the year but something bright and pretty can be procured. The low, shallow dishes for flowers are discarded for the tall, slender vases which do not require as many flowers, and are more effective.

The symphony teas and lunches have been and are now very popular. A pink tea, with beautiful pink roses, and pink shades over the lamps, gives a pretty rosy hue to all gathered about the table. The same with the golden flowers, with shades to match, will give us the beautiful sunshiny effects. A well-arranged table, with its simple menu, is much more of a feast than the one where all thought and expense is put upon the costly variety of rich food. An overloaded table is as offensive to good taste as is an overdressed man or woman.

The Gospel of Good Roads.

The mass of the people admit the importance of good roads and the certainty of its benefits, yet cling to the old-time methods. Slowly the leaven of good work is making its way into the lump. Better roads are a necessity. The trend of the times is toward the permanent improvement of the public highways. —*Southern Cultivator*.

MAKESHIFT ROAD-MAKING.

Now is the time to think about improving the roads. In many places they are in bad condition. Not only this, but they have been in such condition at this season of the year ever since they have been opened. During "mud time" there is no end of complaints, but when the ground is settled again the evil seems to have been forgotten. At any rate, nothing special is done to remedy it. More or less work is performed every year in the way of repairing these roads, but too often it is done in a makeshift manner. Recent damage is repaired, but as far as improvement is concerned the work amounts to but little. Now, as the roads are, and must be, in constant use, and as a large part of the produce of the farm must be drawn over them to find a market, something in the way of betterment should be attempted. The enormous quantity of freight carried by railroads is first hauled over wagon roads, and the condition of these roads makes an immense difference not only in the ease of doing the hauling, but also in the expense which this work involves. So it becomes not merely a matter of convenience, but also one of economy, to keep the roads in good repair. —*The Practical Farmer*.

LOSS BY BAD ROADS.

A bulletin from the Road Department at Washington says: The national importance of this subject is fully set forth in the bulletin from the Road Department at Washington as follows: Three hundred and thirteen million, three hundred and forty-nine thousand, two hundred and twenty-seven tons of farm products were hauled over country roads at a cost of \$663,869,000, and on this basis the cost was over 24 per cent of its value to haul to home markets. Commenting on these important figures, the department says: This increase in cost of haulage is by no means the only loss by bad roads. The loss of perishable products for want of access to markets when the market is good adds many millions to the actual tax of bad roads. The enforced idleness of millions of men and draught animals during large portions of the year can hardly be estimated. Information in the department of road inquiry indicates that nearly two-thirds of this vast loss can be saved by road improvement, and this at a total cost not exceeding the losses of four years. —*Farmer's Review*.

ROAD-MAKING IN RHODE ISLAND.

The last Legislature of Rhode Island made provision for a commissioner of roads, and voted the sum of \$300,000 for the purpose of building sample half miles of roads in towns that apply for them with the guarantee to pay one-fourth of their cost. Something like a half or more of the towns of Rhode Island have made application for money under this act. The move strikes us as a wise one, although it is evident that it would be at some sacrifice in the cost of construction, but the end justifies the method.

The construction of a half mile of road in each town will form an object lesson in the construction of permanent roads and their utility in practice. If it is found by using them that they are easier of draft and pleasanter avenues of travel, the Yankee is sure to have them. Every economy he is sure to possess in the end, for he has earned the art of the command of capital that repays its outlay with profit. He has so far been taught the value of these things that minister to the pleasure and comfort of life that he has come to regard anything that directly ministers to them that can be commanded as a necessity and a profit. While he is a utilitarian unsurpassed, he has learned to make a very wide application of the term utility. He has an immense amount of energy to expend in some direction, and in these times of labor saving appliances he calls necessary the things formerly known as the luxuries of life. He is now applying his surplus energy in the directions that bring him most comfort and pleasure. With railroads girdling the country in all directions and highways in primitive conditions, he is fast learning that the next great movement in improving the avenues of transportation that will render the country the most service in its broadest sense must be in the development of good country roads. —*Mirror and Farmer*.

Calendar.

1896-97.
Fall Term—September 10th to December 19th.
Winter Term—January 5th to March 27th.
Spring Term—March 30th to June 10th.
June 10th, Commencement.
1897-98.
Fall Term—September 9th to December 18th

To School Officers.

The College Loan Commissioner has funds now to invest in school district bonds at par. The law requires that no bonds be sold at par or less without being first offered to the State School Fund Commissioner and the State Agricultural College. Address C. R. Noe, Loan Commissioner, Leon, Kan.

GENERAL LOCAL NOTES.

Foreman House is again at his post after a second battle with disease.

Mrs. McClurg and daughter, of Manhattan, attended Chapel exercises.

A model of an improved "Jumbo" windmill has been received at the shops for test.

Prof. Brown suffers from a relapse, which has kept him from College duties for a week.

Minnie Spohr, Fourth-year, has recovered from an attack of the measles, and returned to classes.

Mrs. Brock, of Centralia, visited College on Saturday in company of Winifred Houghton, Fourth-year.

O. E. Noble, Fourth-year, is working in the shop on repairs for a stationary engine belonging to his father.

The INDUSTRIALIST was forced to miss last week's issue on account of delays incident to the repair of a broken press.

R. H. Pond, Fourth-year, was kept from classes several days by the sickness and death of his grandmother, Mrs. Martha Haines.

Misses Haffner, Rathner, and Oesterhaus, of Junction City, visited Rose Tannehill of Second-year classes and attended Chapel Saturday.

Misses Rhodes and Bayless entertained a party of their classmates on Monday evening, at the home of the former, in honor of Washington's birthday.

The Gentleman Farmer, a new agricultural journal, issued from Chicago, asks the College for engravings to illustrate a proposed "write-up" of the institution.

Bessie Lock, Third-year, has the sympathy of classmates in the death of her father, Sheriff Lock of Manhattan. Mr. Lock died Friday evening and is to be buried today.

The following persons were among the visitors at Chapel exercises Saturday: Flora Aillingham, Third-year in 1895-6, T. C. Davies, '95, Louise Spohr, Third-year in 1896, Bert Greene, C. C. Smith, '94.

A temperature of 4° on Friday was a reminder that winter has not wholly deserted us. But a southerly wind and a few days of sunshine will drive away the last trace of frost and make us to realize the near approach of summer.

Dr. Mayo received a telegram last Sunday evening announcing the sudden death of his grandfather, James Mayo, of Battle Creek, Michigan. Mr. Mayo was ninety years of age. He was a prominent farmer and a pioneer in Southern Michigan.

Clarence Stump, a fifteen-year-old boy, was thrown from a horse near the north College gate, on Sunday afternoon and seriously injured about the head and face. He was picked up unconscious and carried into the barn and Dr. Little called to dress the wounds. The boy will recover, it is thought, with careful nursing.

Mrs. Walters and Mrs. Kedzie entertained the Faculty Club on Saturday evening at the home of the first named. Inventions, both great and small, were discussed as the leading topic of conversation, and their relative importance defended by earnest champions, though a decision has yet to be made between the hair-pin and the collar-button.

The Manhattan Republic's report of the Riley County Educational meeting says of one number: "Secy. I. D. Graham's address on 'Neighbors Who Have Helped Me,' was a treat to those who heard it. He defined neighbors as the persons or things we associate with. Nature is a great neighbor of ours; she, with our books and friends, make us what we are. Our school fellows have a great deal to do with our lives, more perhaps than we realize. Our teachers have the power to start our thoughts in right channels. The address was given in a logical and interesting manner. Those who have heard Mr. Graham know how the serious thoughts were interspersed with humorous ones."

GRADUATES AND FORMER STUDENTS.

T. E. Lyon, '93, was at College Saturday.

J. C. Christenson, '94, has a place in a Lawrence job printing office.

A. B. Kimball, '89, editor of the Scandia Journal, is said to be a very promising candidate for postmaster.

Roy Kellogg ['96] was in town Saturday. He reports that his school, district 68, together with the Lairport School, celebrated Kansas Day by rendering an appropriate literary program in the forenoon, and by having a good time during the rest of the day. There were about forty present at the exercises. Mr. Kellogg's part of the program was the presentation

of an original poem, entitled, "Kansas."—Russell Reformer.

H. C. Rushmore, '79, makes a plea for a Domestic Science Building in a recent number of the Topeka Capital.

Con Buck, '96, took his place in the Drawing Department on Tuesday after a week's sickness with measles.

C. P. Hartley, '92, renews his subscription to the INDUSTRIALIST. He is engaged in horticulture near Fraser, Idaho.

Ivy Harner, '93, has had charge of the class in Political Economy for two weeks during Prof. Will's absence in Topeka.

J. W. Holland, '96, writes of "Self Control" in the last Students' Herald, of which he was editor-in-chief during his senior year.

Fannie J. Parkinson, '96, mourns the death of her father, John Parkinson, of Pamona, who, in a fit of despondency, took his own life.

C. F. Doane, '96, writes from Milwaukee that he is well pleased with his duties as agricultural editor of the weekly edition of the Journal.

Mrs. Emma Haines-Bowen, '67, and Phoebe Haines, '83, mourn the death of their mother, Mrs. Martha D. Haines, who died on Monday, February 22nd, at the age of 77 years.

C. S. Criswell, Third-year in 1892-3, was married, February 18th, to Miss Ida Dougherty, Second-year in 1890-91. The young folks will live on the Criswell farm, north of Manhattan.

W. E. Whaley, '86, writing from Chicago, tells of the election of E. O. Sisson, '86, as President of the new Bradley Polytechnic Institute at Peoria, Ill. He adds: "Mr. Sisson is greatly honored, for the school will be a good one, to commence with, and is destined to become a great one. Twenty-five thousand dollars will be allowed for running expenses (not including equipment) the first year. Eventually, the institution will come into possession of \$2,500,000."

F. J. Smith, '95, editor of the Russell Reformer, in acknowledging the receipt of Colorado Experiment Station report, says: "The report of the Rain Belt Station located at Cheyenne Wells, being near our State, should be of interest to the progressive Kansan, and to us, it was of especial interest, since it is under the supervision of a former collegemate, J. E. Payne['87]. Mr. Payne is the right kind of a man for a station like Cheyenne Wells, where drought and sandstorms will baffle the ingenuity of man. We predict that his method of conducting experiments, together with his perseverance, will yet bring forth something of benefit to Western Kansas and Eastern Colorado."

Fifth Division

Fourth-year Class

• • • FEBRUARY 27 • • •
• • • 1897 • • •



Program of Orations

Music—Chicago Two-Step
Cadet Band

C. E. RICE—

An Unconquered People.

H. J. ROBISON—

The Bicycle.

BERTHA OLSON—

Hospitality in the Home.

EVA PHILBROOK—

Folk Lore.

GEO. DOLL—

Proportional Representation.

Quartet—"Marjorie Daw"

Pfeutze Clothier

Lyman Newell

T. M. ROBERTSON—

Use of Imagination.

HILDA OLSON—

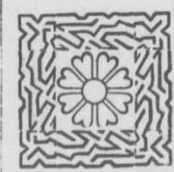
Useful Invalidism.

R. M. PHILBROOK—

Office Seeking.

R. J. PECK—

Is Life Worth Living?



The Delphos Institute.

A well attended and entertaining Farmers' Institute was held at Delphos Thursday and Friday, February 25th and 26th, attended by Professors Hitchcock and Mason. As this is a new feature to the farmers of that section of the State, the committee on general arrangements at first found some difficulty in working up an interest, and it is due to the persistent efforts of a few that the institute was the success it proved to be.

Interesting discussions were had on "Alfalfa on Uplands," "Seed Wheat," "Small Fruit Culture," "Shade Trees," "Fish Culture in Ponds," "Construction of Irrigation Ponds," "Irrigation from Pumps," and "Poultry Raising."

The illustrated talks on "How Plants Grow" and "Small Fruits for the Farmer's Garden," by the College delegation received close attention and called out many questions. Officers were elected and strong committees appointed for the ensuing year, and the institute adjourned with the determination to make next year's meeting still more of a success.

As this is Mr. Mason's home town, the old homestead located in 1871 being on the prairie five miles east of here, there were many old neighbors to greet and many changes to note since that early day. He has seen the country from bare prairie grass become dotted with orchards and groves of cottonwood and box elder trees, and now returns to find these groves nearly all dead and the earlier orchards rapidly going to decay. Care and culture have prolonged the lives of some apple trees, but it is clear that twenty or twenty-five years is about the life of an upland orchard in Central Kansas. Where settlers planted a few trees of green ash or hackberry in their groves and shelter belts, these are enduring perfectly, though the growth has been slow. Honey locust also has grown well, but occasionally scalds on the sunny side.

Mr. I. I. Truex, on his farm in the bluffs west of the river, reports that for four years he has grown grapes by the two-wire Kniffin system of training with good success. Catawba and Agawam are his favorite varieties, and he covers them up over winter. He has also made a success of strawberries by the hill system of culture in rows four feet apart, mulching heavily between rows, and covering in winter.

Mr. W. B. Eame reported a successful method of tomato culture. He plows the ground early in the spring when moist, then mulches heavily with strawy manure. When his tomato plants are well grown and stocky he sets them out, and no further culture is needed.

Mayor Nichols described starting tomato plants in the house in tin cans having the bottom cut nearly out, but left in place. When set out the bottom is turned back and the can set into the ground nearly to the top, letting it project a little to keep out cutworms. By this method he has early tomatoes by the Fourth of July.

S. C. M.

COLLEGE ORGANIZATIONS.

Student Editors—R. W. Bishoff, O. E. Noble, Wilhelmina Spohr.

Y. M. C. A.—President, S. J. Adams, '98; Vice-President, G. D. Hulett, '98; Recording Secretary, O. S. True, '99; Corresponding Secretary, J. M. Pierce, '98; Treasurer, R. B. Mitchell, '99.

Y. W. C. A.—President, Emma Finley; Vice-President, Maggie Correll; Recording Secretary, Ethel Wolfley; Corresponding Secretary, Mary Waugh; Treasurer, Lucy Cottrell.

Alpha Beta Society—President, E. Shellenbaum; Vice-President, Alice Shofe; Recording Secretary, Eva Philbrook; Corresponding Secretary, W. A. McCullough; Treasurer, F. J. Rumold; Critic, J. M. Westgate; Marshal, L. B. Jolley. Meets every Saturday afternoon in south Society hall.

Ionian Society—President, Gertrude Lyman; Vice-President, Mary Norton; Recording Secretary, Dora Shartzel; Corresponding Secretary, Maude Barnes; Treasurer, Nannie Williams; Critic, Winifred Houghton; Marshal, Mary Waugh. Meets every Saturday afternoon in north Society hall.

Hamilton Society—President, L. G. Hepworth; Vice-President, V. Maelzer; Recording Secretary, Wm. Anderson; Corresponding Secretary, G. G. Menke; Treasurer, B. H. Shultz; Critic, W. L. Hall; Marshal, A. F. Kinsley; Board of Directors, A. C. Smith, S. J. Adams, H. M. Thomas, G. F. Farley, F. O. Woestemyer.

Webster Society—President, R. W. Bishoff; Vice-President, J. E. Trembly; Recording Secretary, Earl Butterfield; Corresponding Secretary, E. B. Patten; Treasurer, M. H. Horn; Critic, F. H. Meyer; Marshal, G. W. Owens; Board of Directors, S. Dolby, F. Zimmerman, G. G. McDowell, L. P. Keeler. Meets every Saturday evening at 7:30 in south Society room.

January 13th.

Our President being absent, Secretary Anderson called the Hamilton Society to order. O. E. Noble was elected President pro tem. Roll call, prayer by J. M. Kessler, and reading the minutes occupied a few moments time. Three new members, N. M. Green, E. P. Daniels, and C. H. Sanford were elected to membership. Program for the evening: Declamation, J. L. Bliss; Discussions, W. G. Tulloss, T. E. Thompson, and B. H. Shultze. Music (piano), Ed Sittle. Debate, question, Resolved, that immigration is not a detriment to this country, and therefore should not be restricted. Affirmative force: Wm. Pooie, J. D. Burke, Negative force: M. W. Sanderson, E. A. Rhodes. Select reading, H. Bainer. Declamation, Mr. Ferris. The Recorder, by A. D. Whipple, was an excellent production. Its motto was;

"That man may last, but never lives,
Who much receives, but nothing gives,
Whom none may love and none may thank,
Creation blot, creation blank."

Some of the subjects treated were "Eulogy on P.M.," "In the good time coming," "The tale of a cat," "A prophecy." After the Critic's report there was a slight applause. The business session was lively, as is customary. The fossil question regarding the location of our platform was broached, but nothing new occurred. Adjournment.

G. M.

February 20th.

After the usual formalities in the way of roll call, prayer, etc., the following program was rendered at the session of the Hamilton Society: Debate upon the question, Resolved, that the United States should establish a system of irredeemable paper currency scientifically limited in volume. Affirmative, E. S.

Smith and B. H. Shultze. Negative, L. M. Kessler and F. E. Johnson. The negative won the decision of the Society. Declamation, J. B. Corbett. Quartette, Ed. Amos, H. C. Avery, G. E. Wagoner, and W. E. Hardy. The gentlemen possess splendid voices, although somewhat impaired by our training. They responded to an encore. News, O. E. Farrar. Farce, H. C. Avery, committee. This number, "Safe in his Father's Home," was splendid. The members of Mr. Avery's troupe should be promoted a notch. Select reading, Mark Faris. Essay, F. W. Bobbitt. Discussion, J. C. VanOrsdale. Music by the same quartette closed the program. G. G. M.

February 20th.

A song opened the program of the Ionian Society, after which, Jeanette Perry led in prayer. Cora Swingle read an essay on "Coal Mines," and as it was a personal experience, it was all the more interesting. A sparkling piano solo was next rendered by Gertrude Rhodes, followed with Miss Hood's "Reverie," and are remarkable reverie it was. Alice Ross favored the Society with a cornet solo, which was an unusual treat, and the impersonation of "Freshman, Sophomore, Junior and Senior," by the Misses Cooper and Minis, was true to life. This was followed by a pretty piano solo, by Miss Holloway, and the "Review of Magazine Articles," by Jessie Bayless, closed the program. B.

February 27th.

The usual hour found the Alpha Beta hall well filled with members and visitors. As President Shellenbaum ascended the platform all became quiet. The program was opened by a selection by the Band. F. J. Rumold led in devotion. R. W. Collins was elected to membership and W. C. Crowl and E. H. Deere were initiated. Josephine Wilder presented an entertaining original poem, after which followed a declamation by Mr. Forrest. Miss Wilder next favored the Society with a piano solo. The question for debate, "Resolved, That the Legislature was justified in reducing the salaries," was argued affirmatively by Ed. Shellenbaum and negatively by G. D. Hulett and E. K. Rogers. The Society decided in favor of the affirmative. The Gleaner by the fourth division was read by its editor, Jennie Ridenour. The Society took ten minutes recess, after which followed a quartette composed of Messrs. Clothier, Hulett, F. J. and W. C. Crowl. After some important business was disposed of, Miss Hathaway rendered a piano solo, and the Society adjourned at 5:30. W. A. M.

February 20th.

After an absence of two weeks, the Y. W. C. A. met in room S at the end of the fifth hour. In opening, the association sang from Nos. 31 and 42 in Pentecostal Hymns. Miss Weeks read for the Scripture lesson a few verses from the fourth chapter of Ephesians, calling attention, in her talk which followed, to the last few verses. Singing, No. 90, several sentence prayers, singing again, No. 64, and the association was dismissed. M. W.

More Reasons for a Domestic Building.

Editor Cowgill of the *Kansas Farmer*, who was a member of our Faculty for three years, knows whereof he speaks in urging the necessity for a Domestic Science Building. He says editorially in the last number of his paper:—

"If it be questioned whether there exists such a thing as 'domestic science,' it will not be denied that there ought to be, and doubtless will be, in the near future, a science of good living, which will do as much to make people healthier and stronger in both body and mind, purer in morals, and place them on a higher plane of general existence, as other sciences have done in their peculiar field.

"Some mythical 'old woman' has been quoted as observing: 'If it weren't for eatin' and w'arin' what a sight folks could do.' Perhaps it is not generally realized what a large place eating and wearing occupy in concerns of mankind. With the average mortal, the provision of food and clothing, with the additions of fuel and light and shelter, are matters of first and last concern, are the cause of most of the thought, the object of most of the labor.

"The question of food, its quality as to palatability and digestibility, affects the destinies of the race more intimately than does the question of war or arbitration, is of more moment than the triumph of this party or the other, and its importance is estimated in money, by those who can buy what they will, at a liberal figure. The observer of strong men, especially those who perform prodigious amounts of mental work, has not failed to notice that they are willing to pay liberally for what they eat, and that they are most solicitous as to the excellence of the cooking. A New York journalist who has held a place in the front rank for a generation is reported to have paid his cook a salary of \$1,000 per year for more than a quarter of a century. The people whose brains direct the great industrial and transportation enterprises of the country are those who prefer to pay a dollar for a meal rather than take the risk of inferior cooking at a less price.

Thus far, the preparation of food has been left chiefly to those who "picked up" their knowledge of the subject in a haphazard way, or at most as one learns a trade. But recent investigations of food materials, foods, and nutrition have opened the way for a science of food production and not a less important science of food preparation. The time is coming when our foods as eaten by the present generation will be looked upon with as much loathing as that with which we contemplate the disgusting and the disgustingly-prepared materials with which lower orders of men appease their hunger and sustain their lives. The difference between the culinary practices of people of the present generation pro-

duce results varying from the extremes of poor digestion and resulting in indifferent nutrition on the one hand and good health and strong development on the other. But the best is to be speedily improved, and the people are to live better without added cost.

"Whether the 'new woman' or any new woman comes to reign in the land, or the woman we have loved and honored in all the past still wields the scepter, certain it is that for the majority of the race our destinies as dependent upon preparation of food and to a large extent of clothing will remain in her hands. Shall she be prepared to administer this trust to the greatest advantage of her subjects, or shall this be left to the chance that she will somehow instinctively leap forward in the progress demanded by the age? Shall she be properly instructed in the science of domestic affairs?

"When it is asked whether young men shall be instructed in the science of agriculture, of law, or of medicine, the answer is, 'By all means and, at State expense.' When it is asked whether young women shall be instructed in domestic science, the answer until recently has been, 'Let them learn it from their mothers.'

"The mothers do not know domestic science as the men and women of the future demand that it shall be known. Nobody now knows it as it must be known.

"This brings us to the proposition now before the Legislature to provide a domestic science laboratory worthy of the name for Kansas State Agricultural College. No less than nine of the girls who have graduated from this institution have been called to take charge of domestic departments of institutions in other States. And it is a notable fact that every one of the nine has been provided with a better equipped laboratory than that in which she acquired her training which fitted her for her work. The salaries they receive average \$1,000 per year. The fact that other States are thus calling them, may not be pleasing to the young man with an ambition to make one of the brightest and best his wife—but his case is not now under consideration.

"But, jokes aside, the time has come when not to provide a well equipped domestic science laboratory for the best possible instruction of the two hundred Kansas girls who every year pursue this science at Manhattan, is to neglect the opportunity to maintain position in the front rank and to render an inestimable service to health and strength."

"This laboratory should be equipped not only for instruction, but also for original investigation of the problems of domestic science. The State is especially fortunate in being able to place at the head of this department a professor who has made for herself a name wherever domestic science is mentioned, and who is possessed of the progressive spirit, the ambition, and the ability to keep such a department in the lead in such work the world over. The present Legislature will perform a notable and needed service to the State if it provide a well-equipped domestic science laboratory."

Shiftless, Spiritless Farming.

To run too long in one unvarying channel of business, man is prone to become spiritless, grows shiftless and unenterprising. He must vary or change his methods, make new shifts, so as to give newness and variety to his occupation, which serves to stir up an interest, with desire to see and enjoy the results thus wrought out by his handiwork. This awakening to the calls of industry, writes J. J. Beard in the *Epitomist*, in other words, is enterprise, without which no one is likely to prosper much in any sphere. An enterprising spirit strives to accomplish something as much for the pleasure in its accomplishment as for the actual need of the fruits of its labor.

With some it is difficult to get up this enterprising spirit; especially so with such people as are inclined to "take things easy" and to "let every day provide for itself," from which very cause there are thousands of farms—to say nothing of the personal improvement of families—throughout the country that are rendered unattractive and undervalued by the despoiling effects of neglect and which, by the touch of a little rubbing up, so to speak, would be enhanced in value and made beautiful as "apples of gold in pitchers of silver."

Many such farmers, too—as we are speaking chiefly of farmers—are proud and want themselves and families to stand fairly creditably, yet neglect one of the essential means of gaining respectability. For next to education and refinement in our persons is that of improving and beautifying the homes in which we dwell. So, then, the father who wishes his family to enjoy a respectable position in society should also strive to have a bright and attractive home for them.

The neglect of the home and family often comes of a too eager pursuit after money-getting, sometimes of petty speculation, sometimes of too much concern about public affairs and many other similar causes which distract attention from home and home affairs, and as a rule only half work is done anywhere.

System on the Farm.

The systematic farmer is generally a successful farmer, and the careless, easy-going farmer is generally unsuccessful. One of the most essential points for success in any business is a systematic organization of all the forces contributing to it. The *Southern Farm* says:—

"In every department of labor the essential to success is a systematic method. System is especially needed in farm work, because the life of so many living things is in the power of the farmer. There should be a regular hour for feeding stock. Animals soon learn the hour for their meals when given regularly, and are impatient of delay. Bawling, bleating, or squealing for an hour before each meal, does not hasten the development of fat in calves, lambs,

or pigs. At other times the food is given too soon the animal not being hungry, and not prepared to make the best use of it. There should be a certain hour at which to begin feeding in the morning, and a time at which to quit feeding at night, or rather evening, for we don't believe in feeding after dark, except in the shortest December days.

"The farmer who feeds his stock by lantern light during spring and fall months, will be apt to get crops in late and pick corn till the holidays. The family meals should not vary ten minutes from the specified time; neither should the men ever keep the meals waiting. Children should be off to school on time, neither too late nor too early. They will be more apt to have their lessons on time, if everything is regular at home. The work is so much easier to do when everyone knows his time and place; life is more pleasant, and happy times come oftener. System preserves health, for we know that worry kills more people than disease.—*Mirror and Farmer*.

The Farmer and His Crops.

The man who grows large crops is usually considered a good farmer. As far as his farm operations can indicate, he is regarded as prosperous in the present, and as likely to be successful in the future. This may or may not be a correct supposition. Appearances often indicate the exact truth. Frequently they convey an impression that is altogether wrong. It is sometimes necessary to go "behind the returns" in order to get a correct view of the situation. Take the matter of finance as an illustration. At a given date one man may have but very little ready money, while his neighbor has a great deal more cash on hand. Yet the former may be wealthy and the latter may be poor. The one is rich because, though he has but little money with him, he has surplus funds upon which he can draw at any time. The other is poor because, though he has money in his possession, that money is not absolutely his own, but must be turned over to his creditors. The rich man may seem to be poor and the poor man may seem to be rich, but the appearance does not in the slightest degree change the facts in either of the cases. Something similar to this may be seen in almost any large farming community. One man is growing good, though not very large crops, and appears to be making but little headway, while another, living nearby, sends a much larger quantity of produce to market, and seems to be doing a great deal better than his neighbor.

Yet the former may be doing a safe and fairly prosperous business, while the latter, by violating some of the cardinal principles upon which permanent success depends, may really, though not apparently, be doing a losing business. In order to determine the exact condition of farm affairs, and form a correct idea of the direction in which they are tending, it is necessary to consider, in addition to the present returns from the land, the cost of producing the crops and the effect which their production will have upon the fertility of the soil. It is possible to grow large crops, and have them prove a source of loss rather than of gain. Neither is necessary. Yet, it is what, owing to faulty management, sometimes occurs. It may be brought about by unfavorable conditions, as when onions are grown upon land that is full of weeds, which make cultivation unduly expensive; by the application of excessive quantities of fertilizers or manures, more or less of which will be lost; and in various other ways which increase the cost of production far out of proportion to the value of the crop that is secured.

The crops make a fine appearance, but they are too expensive to be profitable. It is also possible to make large sales of farm products and yet not be preparing for permanent prosperity. Men who send large quantities of such material to the market and make no return of manure or fertilizer to the land, are not doing a safe business. They are not merely selling the natural produce of the land, but are diminishing its stores of fertility, and, practically, they are selling the land itself. For a few years of such a course may show large gains, but the income from the land will diminish, and the time will soon come when the apparent profits can no longer be secured. When judged by the standard of permanent results, the course described can lead only to disaster. It is desirable to grow large crops, but they should be produced in such a way as to yield a fair profit and also leave the land in at least as good a condition as it was before they were grown. Failing in this, the farmer not only diminishes the measure of his own prosperity, but inflicts a wrong upon his successors.—*Practical Farmer*.

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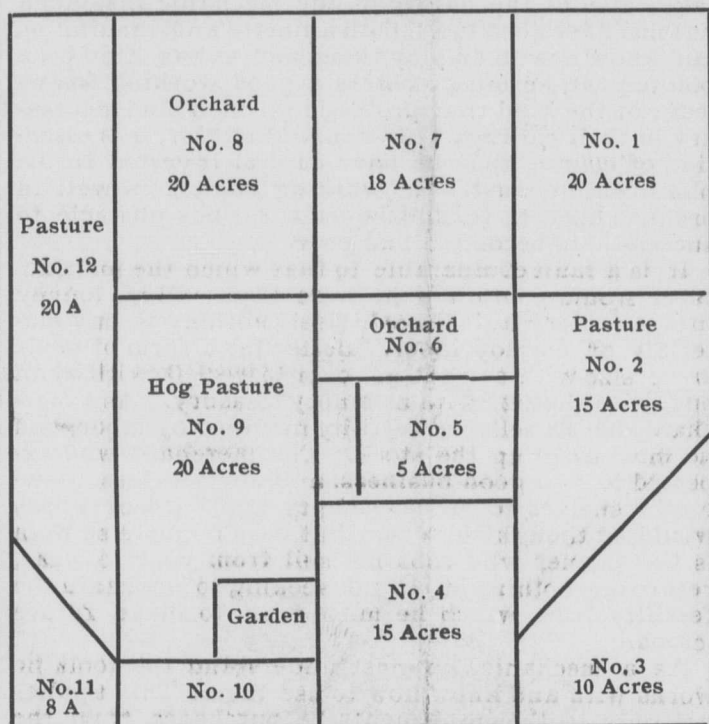
EXTRACTS FROM THE CORRESPONDENCE OF THE FARM DEPARTMENT.

BY PROF. C. C. GEORGESON.

AS there are probably thousands of farmers in the West who are confronted with problems similar to the one given below, which a correspondent has referred to me for solution, or at least for suggestions as to the best crops to raise, I give the subject matter of the enquiry and my reply.

ROTATION FOR A DAIRY FARM.

This correspondent owns a farm of 160 acres in Labette County, Kansas. He wants to devote it to dairying and hog raising. There are some twenty-five acres in orchard, the trees being fifteen years old. On the south side of the farm are some thirty-five acres of creek bottom, the rest gradually rising toward the north. The fields are divided approximately as in the accompanying plan. It is all under



culture; at least no mention is made of unbroken land. He has decided to put fields Nos. 2 and 12 into grass for pasture; and No. 9 and, eventually, also No. 7 and the orchard, if advisable, are to be used for hog pastures. He wants to know, first, what to grow for feed for the dairy herd; second, what rotation to follow to maintain the fertility of the soil; third, what to use for hog pasture; and fourth, the best grass mixture for pasture and meadow. He also expects to give much attention to fruit-growing and gardening.

The reply ran somewhat as follows: To begin with, I would suggest that you sow alfalfa in those fields which you have set aside for hog pasture, except the orchard. We have a little hog lot here at the College, about an acre and a half in extent, in alfalfa, which last year maintained an average of about twenty shoats all summer. I am satisfied that you can raise nothing for hog pasture which will be more satisfactory than alfalfa. Seed it at once with about twenty pounds of seed to the acre.

The orchard can also be used, at least part of the time, for hog pasture; but do not sow alfalfa in the orchard. Experience has proved that it robs the trees of nutrition. Cultivate the orchard in soy beans. This is a crop that will benefit the orchard in several ways. While cultivating the beans, you will also cultivate the trees and keep the weeds down, and it is a leguminous crop, which will enrich the soil in nitrogen. If you do not want beans for seed, you can "hog" them down just before they mature, or they may be cut for hay, as may seem best. Or, if they are not needed either for seed or feed, they can be plowed under for green manure, for which purpose there is no better plant in our entire range of agricultural crops.

As to the permanent pasture and meadow, I am not so certain what to advise for that particular place. Here on the College farm, I now sow a mixture of about fourteen pounds each of orchard grass and English blue grass, and five or six pounds of red clover seed to the acre. Possibly this would not be the best mixture for that locality.

As for the remaining portion under cultivation, I suggest that you divide it into four nearly equal parts, one of which you plant to corn, the second to Kaffir corn, third to cane, and the fourth to rye and soy beans. You will, of course, always want grain feed, both for hogs and cattle, and if the grain crop is divided between corn and Kaffir corn, there is less danger of complete failure in case of drought.

I would think it advisable to raise some cane (Kansas Orange preferred) for winter feed. Properly

handled, it makes excellent feed for dairy cows and yields an abundant crop. If you build a silo, and I think every dairyman ought to have one, you could put it in the silo along with some corn and soy beans. The mixture would make a succotash which will be highly relished by the cows. The cane should be cut early, before the seed is fully ripe, and thus clear the ground, so as to sow the rye early in September, to be used for winter and spring pasture. The only draw-back to the rye would be that it might harbor chinch-bugs; should this prove to be the case, it may be necessary to abandon it. However, it should be turned under in the beginning of May, and the ground planted to soy beans during the latter half of the month. Chinch-bugs will not hurt the beans; hence, unless they should migrate to adjoining crops, they will do no harm. The soy beans will mature by the beginning of September, and will be found of great value to feed in connection with corn and Kaffir corn. The ripe beans furnish pound for pound more nutrition than linseed oil meal, and the whole plant, if cut before the beans mature, is equal to bran in nutritive value. In any case, the beans will be out of the way, so the ground could again be seeded to rye or wheat for spring pasture, which should be turned under in time to plant corn.

The rotation would then stand thus: First year, corn; second year, Kaffir corn, for which the ground should be manured; third year, cane, to be cut for forage and the ground seeded to rye, and fourth year, rye in the spring, soy beans in the summer, and rye again in the fall. This will put half the cultivated land in rye for winter pasture each year.

The manure that is not needed for the Kaffir corn ground should be scattered over the grass land as evenly as possible during the winter or early spring. I recommend manuring the Kaffir corn ground rather than the corn land, for two reasons: First, because the green rye to be turned under, if there are no chinch-bugs, will furnish a good coat of manure; secondly, because the manure loosens the ground, and in case of dry weather, the corn is more liable to suffer in a loose soil than the Kaffir corn.

OVERFED STEERS.

The following query and reply also bring out a point which may be of interest. A correspondent who is feeding 125 head of steers states that they have been doing well until within the last few weeks, but of late many of them have been scouring most persistently. The daily ration of the lot consists of 4500 lbs. of corn ensilage, 900 lbs. of wheat bran, 1300 lbs. corn chops, and 250 lbs. oil meal, all mixed together before being fed, and they have in addition all the sorghum and prairie hay they will eat. He wants to know the cause and remedy for scouring.

ANSWER.—I have scarcely a doubt but that the trouble is due to overfeeding. You do not mention what the cattle weigh, but they probably do not much exceed 1200 lbs. Now, I find that steers which are at present weighing between 1200 and 1300 lbs. cannot eat more than 18 lbs. of grain per head daily with safety. They will eat more for a few days if we give it to them, but it will result in scouring. They cannot digest it. When animals that vary more or less in quality and temperament are fed together, there are undoubtedly many greedy ones which will eat more than their share, and the result is indigestion and scouring. The above ration gives an allowance to each steer of nearly 20 lbs. grain and 36 lbs. ensilage, besides sorghum fodder and hay. Only a large steer with good digestion can utilize such a feed. The ensilage, and bran are both laxative feeds, and possibly so large quantities of these may cause scouring, while a less laxative feed would not. I would advise a decided reduction of feed for a few days till the trouble subsides, and then gradually increase the amount, but keep within the safety limit. And it would be still better to separate the well ones from those that scour, if possible, and treat each lot as the occasion demands.

True as Gospel.

If the theory of the trust makers is right, then we should have but one railroad company, but one dry goods firm, but one grocery firm, but one wheat-buying concern, but one milling company, but one clothing-making corporation; in short, every interest in the land should be in the hands of one organization, and this theory carried to its logical conclusion, must assert that the government should be in the hands of one man, a despotism, and there are you!—*Farm, Stock, and Home.*

OUTLOOK FOR THE WHEAT EXPERIMENTS.

BY F. C. BURTIS,
ASSISTANT IN AGRICULTURE.

IT is a little early to predict what the final outcome will be, as the spring is too backward, and a very little showing of growth has started in any case, with the present condition of the soil, and the ground freezing and thawing every other day. The wheat will be injured very much in its feeble condition before our freezing weather is over.

But the tale is told for some of it already. The showing is not much like the fine prospects we had in the fall. On account of the cool fall, the top growth was very moderate, but the plants did well and made a good root growth—conditions that would enable it to pass through a pretty severe test.

The first set-back it received was the November storm. The morning of November 26th found the ground saturated with water, and shortly after the fine rain that forenoon, the wind turned north, and by night the thin mud that covered the wheat fields was frozen solid, and the temperature lowered until we had almost zero weather, and the ground was frozen for several days. But soon we had bright, sunny days that would thaw the ground out pretty well, one to three inches deep, and these were often followed by nights that would freeze the ground solid again. This continued until after the middle of December. Although the rain-fall for the month was light, there were no drying winds, and the soil retained ample moisture. But the last part of the month found the ground very loose and fluffy, and entirely free from frost. The warm days gave the wheat plants quite a start, and not until then did wheat show how seriously it was damaged. All the College varieties pulled through this siege, but some were left in a weak condition. Quite a number of imported varieties growing on the College farm were killed.

Following this severe test, the January and February conditions have been of the same character. Repeatedly has the ground thawed and frozen, and the surface has been very wet during the most of those months.

The first of March did not find most of the wheat in a very hopeful condition. Some of our old, well-known varieties, as Red May and Farquhar, are dead, and others are in a critical condition. It is gratifying to find that our most reliable sorts are coming out nicely and are already making quite a showing. The best known of these are Zimmerman and Turkey. We are fortunate in having a large number of our experiments with these. Some experiments, seeded with Currell, are in a hopeless condition. Of our list of some fifty-seven varieties, about one-half are in a critical condition. A number of varieties new to our locality that were obtained from Ontario and New York last fall, and are being grown here for the first time, are looking very well. Some of the best of these are Early Genesee Giant, Early Arcadian, White Golden Cross, and Diamond Grit. Our experiment "Method of Seeding" shows, at this date, that it makes but little difference about the freezing out, whether the seed was broadcasted or drilled, although the drilled plats are in a slight the best condition. In our "Time of Seeding Experiment," the early seedings make far the best showing.

The experiments were mostly seeded about the middle of September. The ground was in fine tilth, and the surface finely pulverized. The last point may not have been altogether in the wheat's favor this time. With the heavy, dashing rains of the fall, the surface soil ran together very much, and this was not a condition in the wheat's favor. A coarser surface would not have run together so much.

Still, while we have had hardly zero weather, the winter has been severe on our wheat, and with such freezes as we have this morning (March 6th), to be followed by a thaw, and without doubt, by more freezing, and the ground full of water, the outlook for our wheat experiments is not encouraging.

Young Folks on the Farm.

Deciding what line of work the boys on the farm should follow and shaping their tastes and inclinations is a matter of no small concern for the farmer and his wife. It is the desire that the children shall remain upon the farm, but this need not be expected. The present as well as the past teaches that the sons will seek their vocations, and while they will not all remain to till and cultivate the ancestral acres the parents should see that the son have every opportunity for making a success of the vocation to which his inclination tends.

The father can do much in developing in the boy a love for the farm and farm work if he will give a little attention to the matter. At the age when the young mind is pliable and easily bent, it is a simple matter to impress such feelings towards farm life as will never be eradicated. If the boy is worked early and late with no incentive to make an interest in the crops and stock beyond what may have been inherent he is liable to become tired of farm life and seek some more congenial employment. Interest him in the care of livestock. Give him a heifer, colt, pig, or lamb, and instruct him carefully in its management and care. Let him understand that the animals and their produce are his, providing he takes proper care of them.

A little inducement of this character will interest the boys sooner than anything else. If we mistake not, each boy will strive to make his animal do as well as his brothers, and they will soon become attached to their charge. Get them interested in the live-stock department of the papers, let them learn the effects of feeding this or that kind of feed, or the difference in the treatment given animals, and the regularity or irregularity of feeding. Get them interested in the physical nature of the animal and the wide scope of development in feeding and breeding. Let him learn the art and science of farming and feeding, and the so-called drudgery of the farm will pale into insignificance in comparison to the deep scientific features of the work.—*Farmer's Guide.*

The Modern Farmer.

The days when the farmer can tickle the soil with a hoe and it will laugh a harvest are gone by. The old maxim that "he who by the plow would thrive must either hold, himself or drive," has also ceased to express the elements of agricultural success. The farmer of today must be a thoroughly well-equipped, all-around man. He must possess some capital, both fixed and working. As a seller of fertility in consumable form, he must have some of the attributes of the merchant, and must also keep up his stock. He partakes also of the nature of the mechanic inasmuch as he must have good tools, both animate and inanimate, and know how to employ them; and, as has often been pointed out, he must possess a good working knowledge of the kind that professional men find necessary in their callings. As a manufacturer, it is essential, of course, that he have capital invested in his plant, but he must have working capital as well in order to operate it, and hence a serious obstacle to success is to become "land poor."

It is a fault comparable to that which the manufacturer would commit if he were to put all his money into a factory and leave himself nothing to buy materials or employ labor. Better far a farm of moderate size with something over to work it with, than one twice the size with an empty treasury. As a merchant, he is a seller of fertility modified by labor, and he must keep up the stock. The merchant who expected to do a good business, and nevertheless allow his shelves to become empty and bare of goods would be thought foolish. But he is no more so than is the farmer who robs his soil from year to year, returning nothing to it, nor seeking to maintain the fertility from which he must draw to make future crops.

As a mechanic, he must understand the tools he works with and know how to use them. This applies not only to the implements he purchases from the implement dealer, but also, to those he buys from the breeder and uses in his live-stock operations, if he grows live-stock, as he must do to be successful. In both cases the tools must be good. With those of an inanimate kind caution is hardly necessary, for the farmer is generally on the alert when he is buying an implement, and he at least tries to get the best. With those he buys from the breeder, the necessity for getting the best is not so clearly recognized in all cases. There are some who insist upon it, but there are many who do not. In so far as they fail in this respect, it will detract from the success of their live-stock work. In these days it is only the best that pays, and the farmer can no more succeed with poor stock than the mechanic can succeed with make-shift tools.

Last, but not least, in imitation of the successful professional man, the farmer must keep up with a knowledge of the latest practical work and practical methods in his profession. We would have but little confidence in a physician who did not keep abreast with the more recent discoveries in the healing art, but content himself with the knowledge he had obtained in the medical school from which he was graduated. None of us would entrust legal business to an attorney who did not keep informed as to the latest statutes and decisions affecting the rights and duties of the citizen. Whenever a professional man ceases to keep up this class of knowledge, he becomes a "back number" and gradually fossilizes and loses business. In like manner the farmer who imitates him becomes a "rut farmer" and drops out of the procession.

The intelligent, progressive man is the only one who can hope to succeed in these days of close competition with society and its wants as highly organized as they are. Nor has the farmer any excuse for failing to keep himself informed. If he does neglect it, the fault is in the man, and not in his opportunities. We have colleges for the young, and institutes, conventions, and associations of workers in various departments of agriculture for the more mature, which will keep him advised if he will only avail himself of them. We have experiment stations and many other aids of which our fathers knew nothing, and finally, there is the agricultural press, which is, as a rule, well-conducted and cheap, and teems with information bringing to the whole body of farmers the advantage both of scientific investigation and practical experience from the laboratory and the farm.

The requirements of the successful farmer are very much greater than they used to be, but so, too, are the opportunities that are furnished him for meeting these requirements. The farmer should take large views of his profession. He should respect it and compel respect for it in his own person by making himself thoroughly qualified in all its varied requirements. The successful farmer of today must be a high-class man, an all-around man, a man who would succeed in other callings, and who has not merely taken to farming because he is not fit for anything else. The farmer who will take this view of his business, and who will aim high in his efforts to qualify himself for it, will be all the happier, more contented, and more successful.—*Live-Stock Indicator.*

Weather Report for February, 1897.

BY C. M. BRESE, OBSERVER.

A cloudy, muddy month with a much less than normal wind velocity. The almost impassable roads that prevailed during nearly the entire month were the subject of continual remark, the experience being an unusual one in Kansas. The wheat crop seems to be in excellent condition, and this Spring should be an unusually good one for the seeding of tame grasses and planting of trees owing to the thoroughly saturated condition of the surface soil.

Temperature.—The mean temperature was 31.06°, which is .82° above normal. There have been seventeen warmer and twenty cooler Februaries on our record, the extremes being 40.37° in 1882, and 21.5° in 1879. The highest temperature was 60°, on the 20th; the lowest, 4°, on the 26th—a monthly range of 56°. The greatest daily range was 36°, on the 27th; the least, 2°, on the 3rd and 4th. The mean daily range was 15°. The warmest day was the 20th, the mean temperature being 43.75°. The coldest day was the 26th, the mean temperature being 11.50°. The mean temperature at 7 A.M. was 25.71°; at 2 P.M., 37.39°; at 9 P.M., 30.57°. The mean of the maximum thermometer was 39.04°; of the minimum, 24°; the mean of these two being 31.52°.

Barometer.—The mean pressure for the month was 28.816 inches, which is .024 inch below normal. The maximum was 29.548 inches, at 2 P.M. on the 26th; the minimum, 28.342 inches, at 9 P.M. on the 12th; monthly range, 1.206 inches. The mean at 7 A.M. was 28.837 inches; at 2 P.M., 28.799 inches; at 9 P.M., 28.811 inches.

Cloudiness.—The per cent of cloudiness was 57.74. This is 13.74 per cent above normal. The per cent at 7 A.M. was 60.71; at 2 P.M., 58.93; at 9 P.M. 53.57. Eleven days were entirely cloudy; one was five-sixths cloudy; two were two-thirds cloudy; two were one-half cloudy; six were one-third cloudy; and six were clear.

Precipitation.—The total precipitation was 1.2 inches. This is .14 inch above normal. It fell in five snow storms, twelve inches of snow falling during the month.

Wind.—The wind was from the N, 18 times; NE, 14 times; E, 13 times; S, 10 times; SW, 10 times; SE, 7 times; NW, 7 times; W, 4 times. The total run of wind was 6,529 miles, which is 1,527 below the average. This gives a mean daily velocity of 233.18 miles, and a mean hourly velocity of 9.71 miles. The highest daily velocity was 453 miles, on the 13th; the lowest, 74 miles, on the 14th. The highest hourly velocity was 32 miles, for three consecutive hours from 11 A.M. to 2 P.M. on 27th.

The following tables give comparisons with preceding Februaries:—

February	Number of Days.	Rain in inches.	Per cent of Cloudiness.	Prevailing Wind.	Mean Temperature.	Maximum Temperature.	Minimum Temperature.	Mean Barometer.	Maximum Barometer.	Minimum Barometer.
1858	7	.46	...	...	25.49	71	-1	...	...	...
1859	2	.61	49	N	32.25	63	-5	...	...	...
1860	4	1.84	33	SW	33.74	64	-6	...	...	...
1861	0	.00	35	NW	33.70	68	-9	...	...	...
1862	1	.12	51	N-NW	24.54	54	0	...	...	...
1863	7	2.70	56	N	29.72	53	-4	...	...	...
1864	...	...	...	...	...	...	...	...	...	...
1865	4	2.41	...	...	34.68	58	13	...	...	...
1866	...	...	...	...	...	...	...	...	...	...
1867	3	2.01	46	N	31.70	57	-2	...	...	...
1868	3	.18	32	SW	29.39	69	-6	...	...	...
1869	5	1.17	58	NW	30.27	66	-4	28.74	29.25	28.30
1870	0	.00	37	SW	33.68	69	-3	28.69	29.10	28.10
1871	6	2.48	49	SW	35.86	71	3	...	...	...
1872	4	.48	50	NW	32.27	65	-10	...	...	...
1873	2	.31	47	SW	30.50	66	-4	...	...	...
1874	5	1.07	59	SW	25.28	48	0	28.78	29.24	28.10
1875	4	.87	51	SW	22.50	63	-10	28.78	29.40	28.14
1876	2	.65	39	SW	36.96	69	-4	28.81	29.32	28.26
1877	5	.91	50	SW	36.59	65	16	29.01	29.40	28.40
1878	5	1.44	58	SW	39.09	68	6	28.65	29.13	28.23
1879	2	.75	38	SW	21.50	58	-14	28.84	29.42	28.29
1880	1	.05	32	SW	36.78	67	4	28.57	29.09	28.02
1881	3	2.75	52	SW	22.55	47	-13	28.63	28.98	28.23
1882	2	.42	41	SW	40.37	69	7	28.65	28.90	28.14
1883	4	1.75	45	NW	25.76	65	-17	28.88	29.40	28.09
1884	3	.58	46	SW	26.01	63	-6	28.76	29.12	27.97
1885	5	.55	43	SW	21.57	60	18	28.58	28.96	28.06
1886	4	.35	40	SW	31.42	69	-7	28.94	29.48	28.08
1887	6	1.18	58	NE	27.84	72	-9	28.98	29.59	27.90
1888	5	2.67	41	...	32.12	71	-4	29.05	29.75	28.44
1889	3	.54	30	...	25.53	64	-10	29.15	29.80	28.47
1890	5	.24	46	N-NW	29.97	70	-5	28.95	29.48	28.44
1891	2	.84	25	N	27.56	68	0	28.88	29.41	28.16
1892	5	2.95	44	SW	34.64	64	12	28.91	29.25	28.23
1893	6	.89	31	N	26.69	55	-6	28.95	29.69	28.31
1894	2	1.10	33	SW	25.38	67	-11	28.99	29.58	28.22
1895	7	1.39	50	N	24.89	71	-15	29.01	29.50	28.43
1896	4	.56	30	N	36.09	81	1	28.81	29.26	28.32
1897	5	1.20	58	N	31.06	63	4	28.82	29.55	28.34
Sums	143	40.46	1583	...	1148.9	...	...	749.81	...	...
Means	4	1.02	44	SW	30.24	...	...	28.84	...	...

WIND RECORD.

February.	Total Miles.	Mean Daily.	Maximum Daily.	Minimum Daily.	Mean Hourly.	Maximum Hourly.
1890	5812	207.57	374	74	8.65	28
1891	7675	274.11	581	80	11.42	34
1892	7024	242.20	407	101	10.08	30
1893	7747	276.68	494	90	11.52	33
1894	7884	281.57	768	56	1.73	45
1895	6562	234.35	527	81	9.76	29
1896	7216	248.83	523	88	10.37	37
1897	6529	233.18	453	74	9.71	32
Sums	56449	1998.49	...	...	83.24	...
Means	7056	249.81	...	...	10.40	...

Calendar.

1896-97.
Fall Term—September 10th to December 19th.
Winter Term—January 5th to March 27th.
Spring Term—March 30th to June 10th.
June 10th, Commencement.
1897-98.
Fall Term—September 9th to December 18th.

To School Officers.

The College Loan Commissioner has funds now to invest in school district bonds at par. The law requires that no bonds be sold at par or less without being first offered to the State School Fund Commissioner and the State Agricultural College. Address C. R. Noe, Loan Commissioner, Leon, Kan.

GENERAL LOCAL NOTES.

Miss Cunningham visited Chapel Saturday.

Mr. and Mrs. Philbrook were visitors at College Saturday.

Miss Lou Deputy of Riley attended Chapel exercises Saturday.

The *Mercury* issued a good daily edition during M. E. Conference week.

Mrs. Poston and Mrs. Grubb of Netawaka, Kans., spent Saturday with their sons at College.

Mrs. Forsythe, of Dwight, spent Saturday and Sunday with her daughter Lottie.

J. M. Yard, First-year, returned to classes on Tuesday, after three weeks sickness from pneumonia.

Misses Blanch Brown, of this city, and Laura Brown, of Onaga, visited Chapel Saturday afternoon.

Visitors from the Methodist Conference were numerous during the week, coming in ones, twos, and half-dozens. The Conference is to visit the College in a body this afternoon.

Mr. C. J. Walker, of Marysville, visited College on Friday. He has just returned from Madison, Wis., where he took a short course in the dairy school of the University. Mr. Walker is the proprietor of a creamery.

The Fourth-years contemplate challenging the Alumni to a game of base ball early in the Spring Term. Should the game be played, the writer ventures the prediction that the graduates will win with ease.

Eva Gill, post-graduate student, on Friday afternoon entertained a number of graduates and former students of Baker University, her alma mater, called to Manhattan by the M. E. Conference. Refreshments were served.

Foreman Harrold was called to Riley on Saturday by the sickness of his father, who during convalescence from an attack of the grip fell and dislocated his hip. His weakness and advanced age of 77 years make his recovery doubtful.

The Lockland Lumber Co., of Lockland, Ohio, has again placed the Horticultural Department under obligations by the donation of a box of fine samples of shaped cypress lumber, sash-bars, rafters, gutter, etc., used in green-house construction. It will be remembered that last year they donated a large lot of blue prints of green-house plans and details.

Mr. H. G. Kirkpatrick, of Manhattan, donates to the College Museum a specimen of wild duck for which no name can be found. It is wholly unlike any known breed, but is supposed to be a cross between a mallard and a domestic Pekin duck. In color black, it is marked on the neck with a band of white, and slight white markings show on the under tail coverts, while the wings are barred with the browns and greys of the female mallard. The bird weighs five pounds; measures 28 inches from tip to tip, 39½ in extent, wing 12. It is one of a flock seen on the Kansas River last week.

Bulletin No 63—Experiments With Oats.

This bulletin, from the Farm Department, concludes with the following summary:—

"1. Time of Plowing Oat Land.—In four successive years, the best yields of oats have been obtained on spring-plowed land, while, when the seed is drilled in, there has been practically no difference in the yield in these years between fall-plowed land and land not plowed at all. The oats land had in all cases been in corn the previous year and had been well cultivated.

"2. Time of Seeding Oats.—The past season, the seedings made the first and second week in March gave best yields. While the time of seeding must necessarily depend upon the weather, as a rule it is best to sow oats early as March as the ground can be put in order.

"3. The Quality of Seed Oats.—Light, inferior seed is certain to produce less than seed of fair quality, but between a fair quality of seed oats and heavy, sifted seed there is not very much difference, the best yields during seven years having sometimes been produced by one and sometimes by the other. The average for seven years is, however, in favor of the heavy seed.

"4. Method of Seeding Oats.—In an average of six years, no other method has produced so good results as seeding with a shoe drill with press wheels; next follow in order shoe drill without press wheels, hoe drill, and broadcasting.

"5. Amount of Seed Oats per Acre.—The average of six years indicates that it is not advisable to sow less than 2.5 bushels per acre. Heavier seedings have in some years yielded more, in others less, than

has that amount, but the increase in yield by heavier seeding does not more than cover the additional amount of seed used over 2.5 bushels per acre.

"6. Smut in Oats.—Smutted seed oats produce smut in the crop, even though the soil is changed. Of the eight varieties of smutted oats obtained from the Ohio station for this test, the per cent of smut was increased above that contained in the seed in five varieties. The theory that a change in soils will clear the oats of smut is therefore false.

"7. Oats Compared with Barley.—Barley has never, as yet, produced a satisfactory yield at this Station.

"8. Best Varieties of Oats.—The average yield for six years past places the best yielding 12 varieties of oats tested here in the following order: Belgian, Brown Winter, Board of Trade, Red Georgia, Pedigree Red Rust Proof, Golden Sheaf, White Side, Northwestern White, Red Rust Proof, Yankee Profitic, Welch, and Black American."

\$16,000 for a Domestic Science Building.

Mrs. Kedzie this forenoon received a telegram from Hon. T. C. Davis, a member of the Legislature (and a graduate, by the way, of the Class of '91), stating that the appropriation bill of \$16,000 for a Domestic Science Building at this College only awaited the signature of the Governor to become a law.

COLLEGE ORGANIZATIONS.

Student Editors—R. W. Bishoff, O. E. Noble, Wilhelmina Spohr.

Y. M. C. A.—President, S. J. Adams, '98; Vice-President, G. D. Hulett, '98; Recording Secretary, O. S. True, '99; Corresponding Secretary, J. M. Pierce, '98; Treasurer, R. B. Mitchell, '99.

Y. W. C. A.—President, Emma Finley; Vice-President, Maggie Correll; Recording Secretary, Ethel Wolfley; Corresponding Secretary, Mary Waugh; Treasurer, Lucy Cottrell.

Alpha Beta Society.—President, E. Shellenbaum; Vice-President, Alice Shofe; Recording Secretary, Eva Philbrook; Corresponding Secretary, W. A. McCullough; Treasurer, F. J. Rumold; Critic, J. M. Westgate; Marshal, L. B. Jolley. Meets every Saturday afternoon in south Society hall.

Ionian Society.—President, Gertrude Lyman; Vice-President, Mary Norton; Recording Secretary, Dora Shartel; Corresponding Secretary, Maude Barnes; Treasurer, Nannie Williams; Critic, Winifred Houghton; Marshal, Mary Waugh. Meets every Saturday afternoon in north Society hall.

Hamilton Society.—President, L. G. Hepworth; Vice-President, V. Maelzer; Recording Secretary, Wm. Anderson; Corresponding Secretary, G. G. Menke; Treasurer, B. H. Shultz; Critic, W. L. Hall; Marshal, A. F. Kinsley; Board of Directors, A. C. Smith, S. J. Adams, H. M. Thomas, G. F. Farley, F. O. Woestemeyer.

Webster Society.—President, R. W. Bishoff; Vice-President, J. E. Trembley; Recording Secretary, Earl Butterfield; Corresponding Secretary, E. B. Patten; Treasurer, M. H. Horn; Critic, F. H. Meyer; Marshal, G. W. Owens; Board of Directors, S. Dolby, F. Zimmerman, G. G. McDowell, L. P. Keeler. Meets every Saturday evening at 7:30 in south Society room.

March 6th.

President Hepworth called the Society to order at the usual time. Roll call, prayer by Woestemeyer, and reading of minutes by the Secretary, occupied a few moments. The program of the evening was opened by an exceptionally well delivered declamation by F. O. Woestemeyer. Mr. Pratt's declamation was also well rendered. C. P. King's oration was appreciated. Mr. Sewell read us a selection on the intricacies of raising a mustache. The violin selection by P. Fox, accompanied by Mr. Brown, was excellent, and the Society showed their appreciation by calling for another installment. Considerable feeling was stirred up by the debaters. Messrs. Hall and DeArmond argued that our "Farm and Garden" industrial should be compulsory; O. E. Noble and A. P. Kinsley thought quite the contrary, and they expounded such convincing argument that the Society was compelled to decide in their favor. After recess, the Hamilton Recorder, edited by G. G. Menke, was presented. Each member should make it a duty to prepare something for the Society paper—you are not a loyal "Hamp" unless you do. H. M. Thomas' oration, bemoaning the fate of the "old bachelor," was above the standard, especially in delivery. It is hardly probable that Mr. Thomas will long be in suspense. The Critic's report was unusually short. The tacks which held the carpet question to the table were pulled; and, after divers oratorical spurts by the more verbose element, we decided to instruct our committee to purchase a suitable floor-spread. Thus ended a question of long litigation. G. G. M.

March 6th.

About fifty girls were assembled for Y. W. C. A. at the end of the fifth hour Saturday. The meeting was opened by singing. Mrs. Kedzie then told in an entertaining manner, the story of the organization of the Y. W. C. A. in our institution. Many years ago, when the College was on the hill, west of where it now is, there was organized a students' prayer meeting, which was held every Friday evening. This organization lived for many years, accomplishing much good, and was given up at the organization of the Y. W. C. A. in the spring term of 1886. For the first two years, the Association met in Mrs. Kedzie's office every Friday evening, the attendance at that time averaging only about fifteen. Then, for a time, the meetings were held in the Horticultural Hall on Sunday afternoons, and later in the dining room in the basement of the Main Building. But, whether held Sunday afternoon or Friday evening, it always necessitated an extra trip "up the hill," and so it was finally decided that the meetings would be better attended if held as they now are, at the end of the fifth hour Saturday. Although the time allowed is very short, it reaches many more of the College girls, bringing them nearer the Father, and makes each one try to help, in more ways, the girls around her. After a prayer by Mrs. Kedzie, the meeting was closed by singing. M. W.

GRADUATES AND FORMER STUDENTS.

Mrs. Belle Selby-Curtice, '82, of Kansas City, is visiting in Manhattan.

F. R. Jolly, '95, is at home for a short visit. He travels for a Cincinnati soap company in eastern territory.

W. O. Staver, '94, has been admitted to the bar, having successfully passed the examination at Kansas City, Missouri.

Mrs. Louise Daly-Burtis, '93, visited College on Saturday to show Mrs. Thorne of Waterville, the extent of the institution.

G. W. Smith, '93, Principal of the Minneapolis High School, spent Saturday and Sunday at home to attend the M. E. Conference.

S. C. Harner, '90, of Leonardville, attended the M. E. Conference last week, and visited the College several times between whites.

Minnie Walmer, student last year, and Howard Mullen, both of Johnson County, were married the 25th ult. They are at home to their friends on a farm of the latter, near Merriam, Kansas.

S. L. VanBlarcom and Caroline Scott Stingley-VanBlarcom, both of the Class of '91, bury their baby girl in the Manhattan Cemetery this afternoon. She died at their home in Kansas City of membranous croup.

W. R. Yenawine, Second-year in 1889-90, was married in Manhattan, March 4th, to Miss Sallie Dix, the ceremony being performed by Rev. W. A. Quayle, of Kansas City, who was the groom's teacher at Baker University several years ago.

E. O. SISSON'S PROMOTION.

The Chicago *Times-Herald* of February 27th prints a double-column portrait of E. O. Sisson, '86, accompanied by the following sketch of his life:—

"Professor Edward O. Sisson, who has been selected as the head of the Bradley Polytechnic Institute at Peoria, will have the distinction of being the youngest president of any technological school in the country. His youth, however, is not apt to militate against him in guiding the fortunes of the great Peoria school, as he has already had large experience in executive positions of trust and honor. He has been Superintendent of Schools at Mound City, Kan., and Principal of the High School at Manhattan, in the same State. He founded the South Side Academy, located at 5418 Greenwood avenue, in 1892, and has been its Principal ever since. His splendid executive ability soon came the notice of President Harper, and it was through him the future Director was introduced to the Board of Trustees of the Institute. The new Director comes from a family of scholars. One of his elder brothers won the Oxford scholarship two years in succession, open to the whole United Kingdom. He has another brother who is Professor of Anatomy in Ontario, Canada. Professor Sisson received his education partly in England and partly in the United States. He was born in Newcastle-on-Tyne twenty-seven years ago, and landed with his parents in this country when he was twelve years old. His family settled in Kansas. He entered the Kansas Agricultural College and graduated in 1886, with the degree of Bachelor of Science. He entered the University of Chicago in 1892, and received the degree of Bachelor of Arts the next year. In conjugation with Professor R. P. Smith, now Professor of German at the University of Illinois, he founded the South Side Academy, and his success was marked from the start. He has made psychology and the classics a special study, and in addition to the directorship will be at the head of the classics in the new school. Director Sisson will enter upon his new duties early in the summer. His first duty will be to select a Faculty, and in this he can rely on the assistance and experience of President Harper. He will have at his command ample funds, the income the first year approximating the sum of \$25,000, and this will soon be doubled. The institution so auspiciously begun will at the death of Mrs. Lydia Bradley come into possession of property having an estimated valuation of \$2,500,000."

RILEY COUNTY EDUCATIONAL MEETING.

Miss May Secrest's excellent paper, read by Miss Mary Leonhardt, was entitled, "Defective Vision." As a preventive of this affliction, she gave several means which every teacher should use, among them, regulating the light, avoiding poor type, copying from the blackboard, and a stooping position while studying. It has been found that defective eyesight increases as the advanced grades are reached.

In her well-prepared and interesting paper on "Defective Hearing," Miss Nora Newell first named the various causes to which this misfortune may be due. There are more pupils with defective hearing than we are aware of. It is the teacher's duty to discover who of her pupils are afflicted and then do her best to have it remedied.

S. N. Chaffee, in his paper, "Some Methods on Arithmetic," gave valuable suggestions on teaching arithmetic. He believes that it is very necessary to devote much time to this branch; that it develops the mental and reasoning powers. Whatever is learned in this line, however, must be thoroughly learned. He advocated ample drill and constant practice. Much oral work is beneficial.

The post-prandial address by W. W. Hutto, though spiced with humor, reminded each teacher of a duty that is sometimes neglected. His theme was a plea for the bad boy we sometimes find in school.

Miss Lillian St. John then presented her excellent paper, "Horace Mann—a Character Sketch." She told of his noble ideas and actions. The difficulties

which he had to face would have overwhelmed a man of less steadfastness of purpose. His highest ambition was to raise the mental and the moral standing of society. His life was devoted to the uplifting of mankind. His profession was thrown aside, poverty stared him in the face, and opposition met him on every side; yet he never swerved from what he thought his duty. He did a great and lasting good for humanity.

In his paper on "Children's Ideas of Duty," Supt. Geo. D. Knipe said that in its normal condition, child nature is kind and sympathetic; that the child's idea of duty is gathered rather from outside influence than an inner desire. They will copy the manner and ideas of their teachers. If they are treated kindly, they will be kind; if they receive harsh treatment, they will become harsh. Supt. Knipe presented some very good plans designed for the development of a higher moral standing, ultimately making men and women.—*From Republic's Report of Riley Meeting.*

Third Division Junior Class

MARCH 6
1897

PROGRAM

Music—College Orchestra
"Gay Coney Island"—Levi

F. H. DAY—
Our Indian Wards

CASSIE DILLE—
Sincerity

G. R. CRAWFORD—
Our Duty to Cuba

Vocal Duet—"Barcarole"
Maude Hutto Gertrude Lyman

J. M. KESSLER—
Our Divorce System

G. G. McDOWELL—
The Noblest Revenge in History

E. V. HOFFMAN—
Evolution of Government

"Sweet Are the Uses of Adversity."

Those who are suffering from adversity are seldom such philosophers that they can see any good in it, but when they have overcome it and look back upon their day of trial they may exclaim with the banished Duke in "As You Like It," "Sweet are the uses of adversity." The poetry of "As You Like It" is singularly beautiful, and its philosophy no less kindly and agreeable. The banished Duke contrasts the freedom and peace attending life in the forest of Arden, notwithstanding its discomforts of hunger and cold, with the painted pomp, the perils, and envies of the court, and then remarks:—

"Sweet are the uses of adversity,
Which, like the toad, ugly and venomous,
Wears yet a precious jewel in his head."

The jewel which adversity bears to most men is a chastening influence, and is not appreciated until adversity itself has lost its sting. The men who have risen from early poverty, with limited means of education, to greatness look back with pleasure to their early struggles with adversity, for by those struggles they were trained physically, mentally, and morally for the labors of their later years. Negative proof of the uses of adversity may be found in the querulous sensitiveness of pampered children of fortune, who have never known a want that was not gratified and have had no experience with real suffering. It may be found also in the aimless, useless lives of young men to whom the path of life has been made so easy that they have never been called upon to make an effort for themselves.

"Sweet are the uses of adversity" to those who, having been chastened by it, have learned to sympathize with others, to abandon their selfish schemes, and to appreciate the simple delights of life easily within their reach, instead of pining for unattainable luxuries. That contentment which is said to be better than wealth is attainable mainly through experience with adversity. Those who have not suffered from real want become dissatisfied and impatient if crossed in their slightest desire, but the victims of adversity are fortified against all minor ills. No one is likely to deliberately choose poverty and hardship for the sake of their training and chastening influence any more than they can be induced to take physical exercise that is distasteful to them for the preservation of their health, but it should be an encouraging thought to those who are now involuntarily

"OPPORTUNITY KNOCKS ONCE AT EVERY MAN'S DOOR."

Master of human destinies am I:
Fame, love and fortune on my footsteps wait.
Cities and fields I walk; I penetrate
Deserts and seas remote, and, passing by
Hovel and mart and palace, soon or late,
I knock, unbidden, once on every gate.
If sleeping, wake; if feasting, rise before
I turn away; it is the hour of fate,
And they who follow me reach every state
Mortals desire, and conquer every foe
Save death; but those who doubt or hesitate,
Condemned to failure, penury, and woe,
Seek me in vain and uselessly implore;
I answer not, and I return no more.
—J. J. INGALLS.

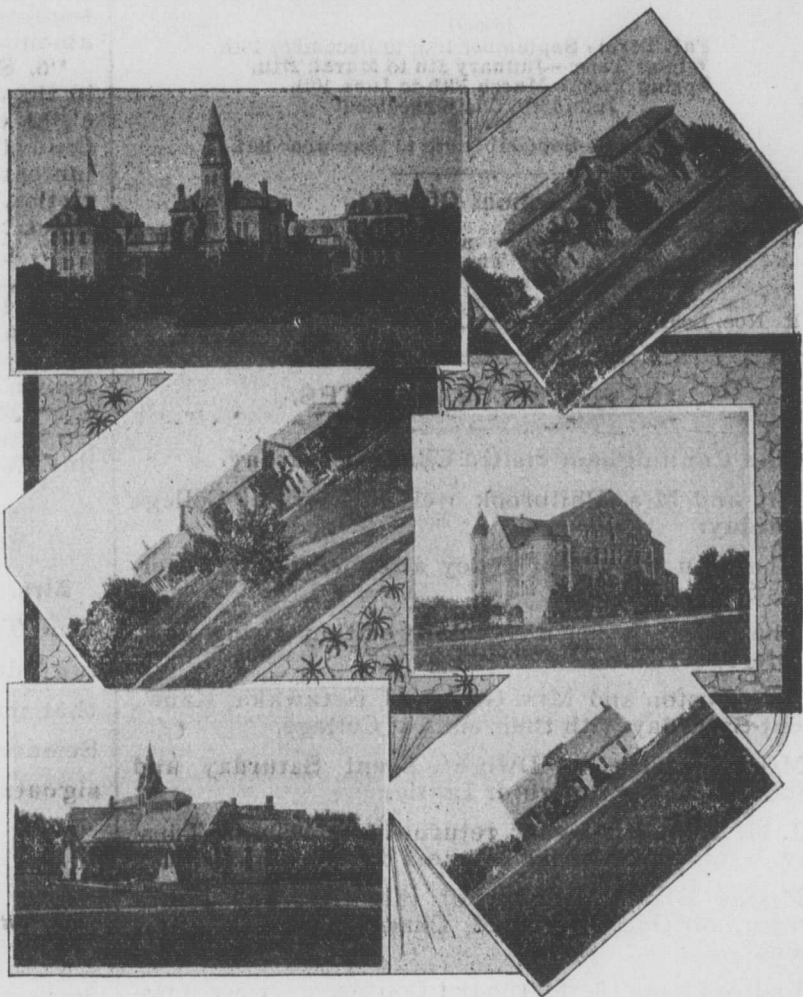
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suffering from hardships of any kind that such have a redeeming quality in that they help to strengthen character and in some cases to improve the disposition.

The most kindly people in the world are those who have suffered deeply. If not themselves broken down, they are prepared to sympathize with other victims of adversity. The poor share with each other their little earnings to a degree proportionately greater than the benefactions of the most generous philanthropist how by reason of the magnitude of his gifts is recognized as such. "Sweet are the uses of adversity." It is adversity that makes the poor man so generous in helping a neighbor in distress; it is adversity that so humbles the spirit as to open one's eyes to enjoyments of nature unknown to the attendants at court, whose lives are artificial. The banished Duke in "As You Like It," though he appreciated the uses of adversity, had no objection to returning to court, taking his lessons with him, and so all who suffer from adversity will seek to escape from it, but at the same time they should recognize that it has its uses.—*Baltimore Sun.*

The science of farming really includes all other sciences. It is a noble occupation, worthy the attention of any man of education. It must be admitted that there is need for something in the common schools to start young farmers in such an intelligent comprehension of their occupation as shall lead them to see the folly of planting, sowing, etc., "in the moon;" when they let their timothy hay go to seed, because it will "last longer;" and when they waste more than one half of the fertilizing that is made on the farm, because they "know better" than the men who have studied the soil, and have told them how to use it. They should be trained to think about their vocation in a way to gain knowledge which they can apply to the various operations of farm life in a way to arouse a spirit of inquiry.—*Exchange.*

Although we live in an age of concentration and of specialties, when the great manufacturing establishment has taken the place of the cross-roads shops;

when the general merchant has given place to the special dealer, and even the farmer has become very much of a specialist, I believe the farming that pays must be general farming—a diversity of crops, mixed with stock raising. A farm, to pay, must be reasonably fertile, and the secret of future profit is in keeping up the fertility, which is most cheaply done by carefully saving all the manure and applying it to the land at the proper time, and by sowing plenty of red clover, always having twenty to forty acres in clover which is allowed to stand two or three years, then plow under for corn or wheat, and sow more clover on other land.—*Correspondent Kansas Farmer.*

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SUGAR BEET EXPERIMENTS—SPECIAL.

BY PROF. G. H. FAIRYER.

IN past years, our Station has made sugar beet experiments to test the quality of the beets raised in our soil and climate. Besides growing beets ourselves, we have distributed beet seed to such farmers as agreed to grow the beets according to directions, and send us at our expense, samples for analysis. Owing to apparent lack of interest in the subject by the farmers of the State, these experiments were not so successful as could have been desired, and were discontinued.

Director True, of the Department of Agriculture at Washington, informs us that the Department has sugar beet seed to distribute to a selected list of farmers. The Station is requested to supply such list and to analyze the beets when grown. We are very willing to take part in these experiments; and take this means of calling attention to the matter. It is hoped to secure a good list, well distributed over the State. The name should be sent to the writer and the seed will be mailed soon.

The proposition has just been received from the Department and special effort must be made to secure proper distribution. If the papers of the State will insert a short notice, calling upon careful farmers and gardeners, who will co-operate in this sugar beet trial, to send their names at once, it will be a great assistance.

Farmers' organizations will be efficient means of distribution. The officers of such organizations can secure names among their members and others in the community.

We want the names of such persons only as can be depended upon to plant and cultivate the beets. This is not to be treated like the ordinary distribution of seeds by the Department of Agriculture. The only purpose is to secure samples of the mature beets for analysis. We will pay transportation on the beets to Manhattan.

SOME FAMOUS STONES.

BY PROF. O. E. OLIN.

GREAT size or unusual brilliancy may make a diamond or ruby crystal famous, as the "Koh-i-noor" of the English crown or the imperial ruby of Russia; but these jewels are of very little importance beside the ordinary looking stone that shall command the loyalty of a nation or the adoration of a race. Various things combine to attach interest, and even veneration to material things, all in a natural way; but when one finds gathered around them legends, traditions, and myths that go back to the early centuries of the world, belief is challenged and curiosity aroused. In all parts of the world one finds relics; but in not many cases can they be traced back more than a few hundred years. Perishable materials, of course, set their own limits to a myth; but it is perfectly safe to attach the earliest traditions to a bit of stone, for it belongs to creation itself.

Among all such that have any claim upon the attention or the affections of men, there are three that are of national, and almost of world-wide interest,—Adam's Peak, the Black Stone, and the Stone of Destiny.

ADAM'S PEAK.

This is a conical mountain in Ceylon, something over 7,000 feet high. It is regarded by the Buddhists as the holy center of the world, and so is peculiarly sacred. Upon the summit is a great rock—enclosed now by a temple—in which there is a large irregular impression, said by the faithful to be the imprint of a human foot. The Buddhists believe that this footprint was made by Buddha on his last visit to the earth as he stepped from this mountain over to Siam.

The stone is sacred also to Brahmins and Mohammedans, and devotees of the three religions make frequent pilgrimages to it from all the accessible country. The Brahmins revere it, for they believe that Buddha was a holy incarnation of their god. The Mohammedans revere it because they believe that the foot-print was made by Adam, who upon this mountain mourned for a thousand years his expulsion from Eden. They account for the single print by the tradition that Adam, for the thousand years, stood continuously on one foot. We may smile or sneer at these old legends, but the fact remains that the summit of Adam's Peak is now, and doubtless will be for many years to come, a sacred spot to millions of the human race.

THE BLACK STONE.

Nearly all are familiar with the picture of the Kaaba standing in the midst of the great mosque of

seven minarets with its wonderful colonnade. The Kaaba, the most sacred sanctuary of the Mohammedan world, is a plain granite building, almost cubical, about forty feet high. It is this that has made Mecca, from its earliest history, the center of worship for the Arab tribes. The Kaaba stands on the traditional site of Hagar's despair, and close beside it is the well that the angel revealed to Hagar to save the fainting Ishmael. It is also the spot where stood the radiant cloud tabernacle, toward which Adam always prayed and around which he marched seven times each day in imitation of the angel rites of Paradise. When the tabernacle of cloud disappeared at the death of Adam, Seth, his son, built upon the place where it stood a material temple of stone and clay of the same size and form. This was, of course, swept away in the deluge; but generations afterward was built again by Abraham and Ishmael. Since then it has several times been destroyed, but has always been rebuilt upon the same site and after the same plan. The present structure was erected in the 17th century.

Interest in the Kaaba centers in a small oval stone that is built into the southeast corner, about five feet from the ground. This is the famous Black Stone of sacred memory. It is not unusual in appearance, is about seven inches in diameter, and probably of meteoric origin, but about it have gathered traditions and myths and legends by the score. Perhaps the clearest of these is, that the angel Gabriel brought the stone from Heaven and gave it to Abraham, who built it into the sanctuary that he and Ishmael made. It was then a jacinth of dazzling whiteness, but it lost its beauty with the increasing sinfulness of the world, until now it is a dead black.

In all the changes of the Kaaba, this stone has been preserved and given a prominent place. It was in connection with this that Mohammed was first brought into public notice. In his early life, before he assumed the role of prophet, the Kaaba was being rebuilt, and the chiefs were in deadly quarrel as to who should have the honor of removing the Black Stone. They agreed to submit the dispute to his decision, a decision that seems to have been entirely satisfactory to all parties.

The stone was broken by fire in the siege of Mecca in 683 A. D., but was afterward cemented together, and the pieces are now held in place by silver bands.

This stone is probably the most sacred material thing in the Mohammedan world today; and it is an act of devout worship for the pilgrim in his seven fold circuit of the Kaaba to touch or kiss the Black Stone each and every time he passes it.

The geologist would tell you that this carefully preserved stone is but an ordinary meteorite, and he would coolly hammer it to pieces to show its structure if he could; but yet I doubt not every sword of Islam would be drawn, and the life of every follower of the prophet freely given to prevent such sacrilege.

THE STONE OF SCONE.

When the visitor to Westminster Abbey is shown into the coronation room, he will see, as the most interesting article of furniture, the English coronation chair. It is a gothic chair curiously carved and having for feet the lions of England. Its back and sides are cut and hacked by the vandals of many generations, so that it is no longer a respectable piece of parlor furniture; but immediately under the seat, resting upon a shelf fitted to it, is the famous Stone of Destiny. This is an ordinary oblong piece of rock such as might be picked up in any quarry, but it has an authentic history as old as the Christian era; and hundreds of intelligent men and women, as they stand before it, believe that they are looking upon the very stone that served Jacob as a pillow on that lonely night at Bethel.

This stone is oftenest referred to as the Scone, because for several centuries it was kept at Scone in Perthshire, Scotland. Here a long line of Scottish kings were crowned, and always upon this "coronal stone." The last to stand upon it was Alexander III. in 1249. In 1296, Edward I. of England carried it away with him to London, where it has ever since remained. Here it has performed the same office as in Scotland, each succeeding monarch being crowned upon it.

But where did it come from? Beyond authentic records, Scottish traditions point steadily to Ireland. The Irish records are said to show that in the sixth century before Christ, a wise, holy man from the East came to Dan, bringing with him the daughter

of a king and the Stone of Destiny. The princess was married to the Irish king, and the "wise man" crowned them both upon this stone, and directed that it should be transmitted from king to king. This was done with a long succession of Irish kings till the time of Fergus, by whom it was carried to Scotland, where it was still used as a coronation stone.

Who was the "wise man?" In scores of books written by scholarly men it is asserted that he is no other than Jeremiah the prophet. Jeremiah predicted the captivity of Israel, and when Jerusalem was sacked by Nebuchadnezzar the prophet was spared and given his liberty and also the custody of Zedekiah's daughter. With her he departed to Egypt, where the scriptures leave him. Tradition asserts that he took with him the "Ark of the Covenant" and "Jacob's Stone" which was kept in the temple with the Ark and the Tabernacle; that from Egypt he went to the Phœnician and Hebrew colonies in Ireland; that he married Jedekiah's daughter Tephi to the North Irish king at Tara, and gave them the Bethel stone as their title deed to Canaan.

Whole books have been written about this stone. One who has given no attention to the subject would be surprised at the amount of the literature that seeks in one way or another to connect the Anglo-Saxon race with the Lost Tribes of Israel, in all of which this Stone of Scone plays an important part.

Whatever we may think of the theories, there, at any rate, is the stone in Westminster to show for itself; and that it is in rightful hands must be clear; for the blood of the rulers of Ireland, Scotland, England, and Normandy, in direct descent, flows in the veins of Victoria.

NOW.

BY W. O. PETERSON, '97.

NOW is a little word in size, but great in meaning. I fear few of us realize the momentous significance of this little word; if we did, life would be better and happier. Then we would set more value on the present and less on the future. The highest success is doing the right thing in the right way at the right time. The element of time figures more largely than the element of manner. There are many who would be successful, if they did not procrastinate; if they did not continually put things off. They put off the execution of their duties until it is too late, or till the result becomes less effective than it would have been at the proper time. One poet says, "Lingering labors come to naught." We have all, more or less, experienced the force of this statement. How many times we have deferred some useful action, and then found when we did do it that it really did come to naught. How often we have been prompted to say a kind word or do a loving deed, but, suppressing the emotion, have left it unsaid or undone. Had we thought that "now and then" was the accepted time, we would have made some one happy and consequently been happier ourselves.

Now! Now! O matchless word! A word, so full of life and meaning; a word in which there lies peace and happiness; a word in which there lies the secret of success. There is no time like the present; no time like now. The Past is dead; the Present is living; the Future is unborn. If man would act in harmony with the foregoing motto, life would be different. It would be purer and better; it would be more worth the living. O, that we all understood the philosophy of life, and further than this, that we all would apply our philosophy. Then, we would not spend such a large part of the present in worrying over the past and speculating on the future.

Poor mortals, as we are, in memory we linger on the deadness of the past while in imagination we picture the brightness or darkness of the time that is to come. With two of the faculties of the mind thus engaged, the third—reasoning—is almost powerless to act in the time that is. Reason, being so crippled, lets the duties of the present glide by in quick succession till they are gone beyond its grasp.

But, says some one, is it not wise to think about the future in order to avoid mistakes in the future? Is it not sometimes expedient, for several reasons, to defer some things we could do now until later? Is not deliberateness preferable to rashness? To all these questions, I answer in the affirmative. This essay says nothing against thinking for a purpose of by-gone time. Meditation, if not carried too far, is a strength to the mind, but worry is a detriment and weakness every time. Thoughtful deliberation for important actions is necessary, but irresolution is often mistaken for deliberation; and one writer says, "Irresolution is a worse vice than rashness."

Momentous is the thought that we are accountable

for every moment of our life. How zealous, then, we should be in using the Present, which is the only time we can really call our own. In closing, I quote the strong and beautiful words of the poet to encourage us all:—

"Strong souls within the present live,
The Future veiled, the Past forgot;
Grasping with hands of steel,
They bind what shall be to their will."

RHEUMATISM OF MIND.

BY JOSEPHINE C. HARPER.

AN English traveler, when asked his impressions of the Americans as a nation, said that "Outside of rheumatism, they are the happiest people on earth." It is claimed that there is no country in the world where the people are so generally afflicted with rheumatism as our own America, with its ever-changing climate.

A medical treatise consulted states that rheumatism is of two forms, acute and chronic, and that several attacks of the acute form produce the chronic. The causes of both forms are the same, of which the more prominent are exposure to wet, cold, damp, changeable temperature or sudden check of perspiration.

Various remedies are in use for the cure of rheumatism. Bathing in the hot springs of Arkansas is a popular and in many cases an efficacious remedy. By this treatment the disease is literally soaked out of the system. In recent years a treatment known as Electropoise has been extensively advertised as a panacea for all ills of a rheumatic nature. The advocates of this cure claim that the malady is actually shocked out of the body if treatment continues long enough. All sufferers from rheumatism are agreed that whatever remedy is used, it is a disease difficult to entirely eradicate.

Observation and contact with the world will convince any one that there are forms of rheumatism not catalogued under that head in the books of the medical fraternity, such as mental rheumatism, of which there are several varieties. The inflated variety has a great affinity for the young. It is seldom met with in a person traveling on the last quarter mile of life. People afflicted with this ailment have an abnormal development of the bump of self-esteem. In the acute form, it needs vigorous treatment. Mental electropoise is hardly sufficient; the shocks are too gentle, being scarcely perceptible. The strong electric battery known as public opinion, if persistently applied to the sufferer, will in time effect a cure, reducing the bump of self-esteem to a normal condition. In common parlance, this disease is called "big head," and like the corresponding physical ailment, seldom proves fatal.

In certain cases of rheumatism the parts affected become useless in a degree, and the individual has not full control of the entire physical being, and if relief is not obtained that individual will go through the remainder of life with a defective body. It may be a stiff wrist, crooked elbow, or a limp in the gait when walking.

Mental rheumatic defects can be caused by leaving some of the intellectual faculties outside the door in the cold and damp while the rest are being carefully cared for in a nursery before a grate of glowing intellectual fire. If this course be persisted in, the case will eventually become chronic, and there is then little hope for a complete cure, even though the undeveloped faculties be bathed in the spring of knowledge best suited to their growth and development.

A number of the acute rheumatic attacks of the mind belong to the youth, and some are absolutely necessary to proper development. It is not necessary to enumerate them; every one knows what they are. Others are contagious in their nature, like scarlet fever or the measles, and one attack generally insures the person against a second. Another form of the same ailment only time and experience can remedy. "Knock-about University" is a most excellent institution for the treatment of several diseases beside these of rheumatic character. Drinking deep and long of the Fountain of Knowledge, supplemented by years of training in the above mentioned University, will effectually cure the ailment known as illiteracy.

If the traveler quoted in the first paragraph meant to imply that the Americans as a nation are affected with mental rheumatism, we need not be greatly alarmed over our condition. We have youth, strength, and vigor, and are possessed of a determination to grow and to improve all our powers while we are young. The greater number of the minor ailments peculiar to youth are outgrown long before mature manhood is reached. Compared with some of the nations in the world, we have not reached manhood in point of years, but a distinguished statesman once

said that youth is no crime, and that time will remedy that matter.

If we are not perfect as a nation, we do know that "Every evil under the sun hath a remedy or hath none," and being convinced that we need a remedy, we will find one. Having found one, we have vigor, strength, and courage to apply it. The application of the remedy may cause indescribable suffering even more intense than the disease itself, but that will not deter us from applying the remedy, once convinced that it is needful to our perfect development.

In the matter of intellectual development, some of the nations on the globe are badly crippled. A few of them walk with such a limping gait as to excite the sympathy of the whole world. We do not intend to bring up in their rear. Our wagon of intellectual culture is "hitched to a star," and we intend to keep a sharp eye on the nation that hitches her to a "span of mules."

Life in the Country.

Life in the country lacks many of the things which city folk enjoy, but on the other hand the dweller in the free and open country, where men and women meet on the basis of old acquaintance and friendships extend through generations, has much to make his fellow in the city envious. Within a week or so three of Chicago's prominent and presumably successful business men have committed suicide. Worn out by the exactions of business life, and finding no rest or relief in nature's wide domains, they sought respite in death.

Out in Colorado the peach-growers have their peach festival; a correspondent from Oregon tells our readers this week of the delightful times the hop-pickers of the Pacific coast enjoy each autumn; there is the husking-bee on the great Western farms, and in California the feast of roses, in Kansas the corn carnival—all wholesome and refreshing diversions to the healthful mind, and such refreshment as those who live in the great centers may never know.

And we find in an Iowa exchange an account of the Glenwood apple carnival, held in the thriving Iowa city last week, when thousands gave themselves up to enjoyment of the time, decorated the town with apples, flowers and cereals, and made merry in such good, old-fashioned and hearty simplicity that we cannot refrain from quoting briefly from the interesting description:

When you stop to think how far a bushel or ten bushels of apples would go in decorating a business block or a residence, you will begin to realize that in order to dress up the court-house, the entire fence which encloses the public square, and all the business houses besides wagons, buggies, and a large number of residences, it took some apples. And these do not include all the requirements for apples in decorating the town. The depot was sided up with apples, and on the top of which was a statuary, and around which were bold signs, presenting mot-toes and welcomes—all made with apples. Then, over the thoroughfare leading up to the city, were four arches, whose material was wood, corn, grasses, grains, flowers and apples. At the four corners of the public square, and at the four entrances to it, were arches, figures and various ornamentalations, made of the products of Mills County, largely of apples. At one corner was an apple tower 66 feet high. This tower was built after the design of an inclosed windmill tower."

Prices for farm products may be low and many a tight pinch be experienced, but so long as the American farmer and fruit grower enjoys these seasons of cheer and good fellowship, he may laugh at the dyspeptic bundles of nerves who haunt the city streets and find no pleasure in living.—*Farmer's Voice*.

Rural Optimism.

I would like to write a whole page on the cheerful side of farming, but as I am averse to long articles, I shall refrain and only say that now is a time when farmers should look at their calling from as cheerful a standpoint as possible. I don't believe in the idea that farming is all right and the farmer is all wrong. Some farmers are on the wrong tack, and some farms are going the same way. Hard times have struck us to be sure, but they have struck our city neighbors as well. Merchants lie awake at nights because they cannot meet their bills, just as the farmer does who has a mortgage on his farm and has blue overalls. While many are out of employment, and do not know where the next meal is coming from, the farmer does know. He can hold his job, and it is good for bread, meat, butter, and fruit. The fact that these poor fellows who live in town have a hard lot, does not make our lot any better, but we ought not to fail to see our advantages, and remember the many good things we are blessed with on the farm. Let us keep cheerful, and try to appreciate the independent position we occupy, which is certainly one of the greatest privileges man can have.—*The Homestead*.

"That tired feeling." Do you have it? If you do, you can puncture it by well-earned and well-employed rest. I never knew what real rest was until after I had passed middle life; since then I have learned its value. Worry, fussing, fretting, fuming, and stewing is harder than labor.—*The Homestead*.

THE WEBSTER ANNUAL.

Another milestone in the life of the Webster Society has been passed. Long before the curtain was raised the chapel was filled with students and their friends, assembled for the purpose of enjoying the fifteenth annual exhibition given by this Society.

Overture	The Fire Laddies	Orchestra
	Invocation	
Address	Present Day Reform	W. B. Chase
Sextette		Their Native Land
	Patten	Bower
	Mitchell	White
Debate		Initiative and Referendum
	T. W. Allison	Schuyler Nichols
Piano Trio		Welcome to Spring
	R. J. Peck	W. J. Rhoades
		C. V. Bunch
Webster Reporter		B. R. Hull
A Character Sketch		T. M. Robertson
Quartette		Until the Dawn—Serenade
	Patten	Bower
		Masters
		Newell
Oration	The Search for Truth	J. B. Norton
Double Quintette		A La Piscatori
Play		The Parable of the "Preps"

The ringing of the fire bell and shouts of "Fire" introduced the orchestra, who, under the direction of Prof. Brown, played "The Fire Laddies."

President Fairchild led in prayer, after which W. B. Chase gave the address of the evening. The question of "Present Day Reform" was very well discussed. "Before entering upon a discussion of present reforms let us consider the reforms of the past. Standing upon the summit of centuries, we can outline the forces which make our nation what it is. The decay of the Grecian and Roman Empires is due to non-application of intelligence to social affairs. Before social equality can be obtained, men must know that law only, and not anarchy, can secure their liberty. Rude or uncivilized society may be likened to the lowest forms of animals: though cut in pieces, yet it will live; highly cultured society, to the highest animal forms, where, if one vital organ is taken from the body, the whole is disabled.

In the past social questions and religious reforms caused much suffering and bloodshed. How beautiful the progress of civilization! No need now for revolutions to change social customs. As we study social conditions, at present, we find such evils as, municipal government, tyranny of labor, political corruption.

These evils can be removed only by removing the cause. When society ceases to produce evil, it will cease to feel the results. The new spirit of socialism is coming peacefully and slow, but when it is here, it will last. Under the new socialism, this will be a good world to all men.

The next number was a musical selection by a sextette, composed of Messrs. Patten, Mitchell, Bower, White, Masters, and Newell.

The debate, Initiative and Referendum, was argued on the affirmative by Mr. T. W. Allison, and the negative by Mr. Schuyler Nichols. Mr. Allison opened the debate. "The people of the United States are becoming more and more dissatisfied with the present form of government, and continually there is a loud cry for reform. Before we can have a social reform we must better social conditions. The legislative bodies must be free from the corruption which exists.

The referendum is an institution by virtue of which all laws and bills may be referred to the people for their approval or disapproval. There are two forms, the optional and the compulsory. The initiative will give the people an opportunity to present bills to the legislative bodies. It is argued that the people may petition these bodies, but a talk in the lobby and greenbacks can influence men to sign or not sign petitions too easily for this to be a fair method. It is argued further that the common people are not competent to know what is best for them; that they would not understand the laws and bills referred to them. The legislators are our servants, and ought to fashion the laws so everybody can understand them.

The initiative and referendum have given good results in Switzerland. It has made rapid growth, and now fourteen of the twenty-two cantons have the initiative, and twenty-one, the referendum. Sixty years ago Switzerland's government was in a state like ours.

Another argues that our country is too large to admit of the assembling of the people. There is no need of their meeting, for what are our newspapers and telegraph systems good for? At present men, rather than measures, are the objects of discussion. We should be able to elect honest men, and this in itself would reform affairs. The National constitution was adopted through the referendum, and the constitutions in most States are amended by it. The

introduction of the initiative and referendum would eradicate much of the political corruption, and would raise the standard of intelligence. Let us make our government in fact what it is in name.

Mr. Schuyler Nichols then spoke on the negative. "The initiative and the referendum are two distinct institutions. The optional form is applied to federal governments, and the Legislature still has the power of introducing and passing bills. It will not do; employees will not sign for a referendum, for fear of losing employment. They will be influenced by their employers. The obligatory is impracticable in our large community. There are too many bills to be considered by all men. Switzerland is a small country, only about one-fifth as large as our own State, and it is not a difficult thing for her people to meet. The referendum fails to accomplish the point for which it is most ardently agitated; men become timid and will not stand up for what they think right; they become careless and think, even if they don't express their opinions, things will come out all right. The initiative is a new idea, and even in Switzerland there has been only one law initiated during the whole time this institution has been in progress, and this only a law against the slaughtering of animals in a certain manner. It is really a law directed against the Jewish nation. If the initiative has not succeeded in Switzerland, we cannot expect it to here. We have a restraining check in the two houses of the legislative bodies, the President's veto, and the Supreme Court.

A piano trio, by Messrs. Rhodes, Peck, and Bunch, was the next entertaining number.

This was followed by the Society paper, the Recorder, edited and read by B. R. Hull. It was filled with good articles and the usual College jokes.

"A Character Sketch" was next given by Mr. T. M. Robertson, which was as follows:—

"Some men are born great, some achieve greatness, and some have greatness thrust upon them." America may justly be called the "Land of opportunities." In no other nation has such a large number of men of public fame acquired positions of honor and trust by reason of their own personal worth and force of character. We see in the life of James A. Garfield the evolution of a self-made man—a typical American. Garfield's life is without a parallel in history. Starting as a poor farmer boy without position or influence, in a pioneer homestead on the frontier in Ohio, we trace him through the successive stages of his development, as tow-path driver on the canal, student in college, and later a professor in the same institution; next a colonel, and later a major-general on the field of battle—a rapid change—and the next day we see him take his seat in Congress; from there, to be elected to the highest position of honor and trust at the gift of a free nation. It is said that during his seventeen years in Congress he took such an active part in the legislative work and expressed his opinions so clearly that if no other material were present the political history of the two decades might be written from his speeches in Congress. His career was unexpectedly ended—the highest ruler of a nation at peace with itself and the world struck down in the prime of his career by the cowardly assassin's bullet. "He was, as a man, the noblest and purest of his time; as a citizen, the grandest of his nation; as a president, the idol of fifty millions of people." He has gone with Lincoln to join the innumerable crowns which move to that mysterious realm where each shall take his chamber in the silent halls of death."

Messrs. Patten, Bower, Masters, and Newell entertained the audience with a quartette, "Until the Dawn—Serenade."

Following this was an oration, "The Search for Truth," delivered by J. B. Norton, of which we give a synopsis: One of the chief advances from the savage condition of early man to our present civilized stage has been the recognition of the value of truth and the consequent search for it. All nations in the past which have had truth at the foundation of their social, religious, and political systems have lived. The rest have fallen. The broad plain of the past is thickly dotted with their wrecks. So we see that truth is the foundation of everything of value we have. The regard and value set on truth is often the strongest characteristic of man's nature. If only the world would be rid of falsehood, error, and deceit, how quickly would all vice disappear. Scientific investigation of recent years has done much to bring out the truth. It has labored in every line, and as its result, shows vast mountains of new truths which

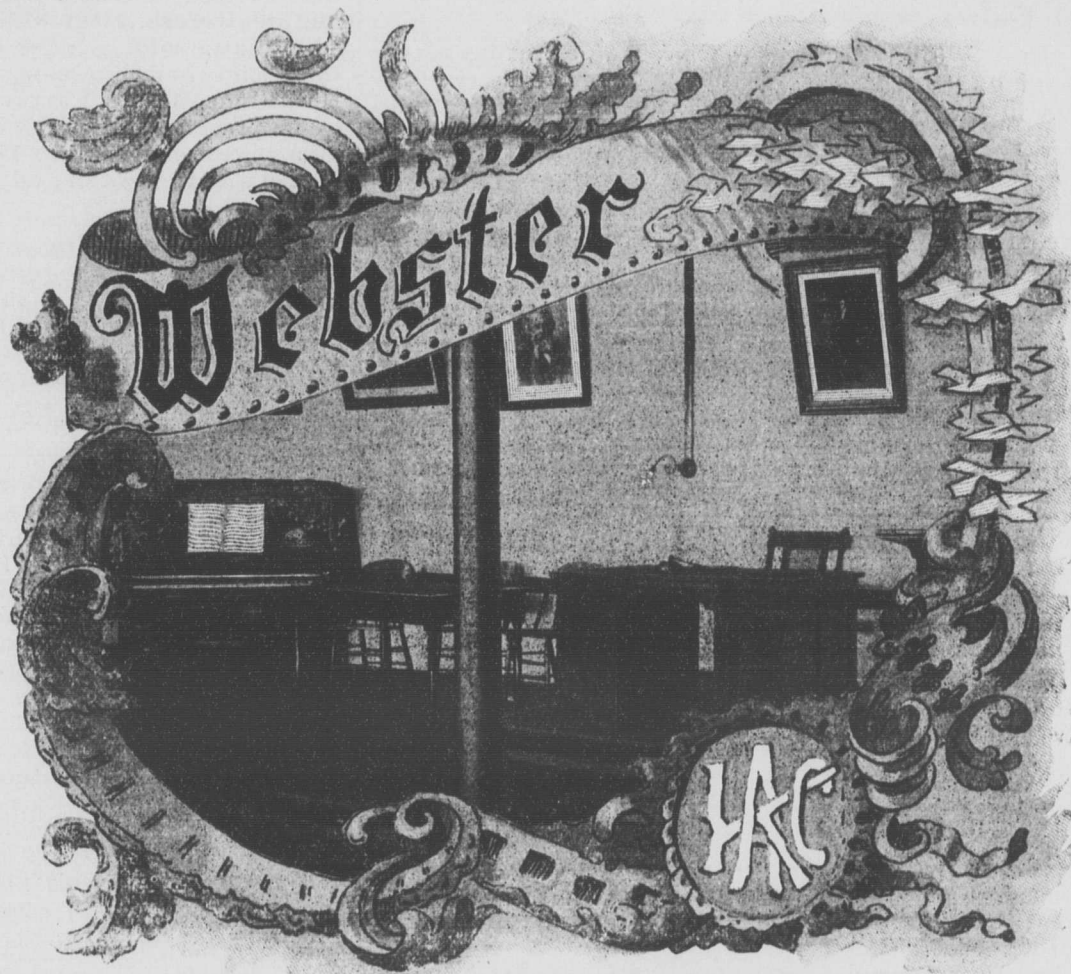
have doubled many times our claims to civilization. Science is the rope that holds together the explorers on the mountain side in their search for truth. By its aid the ones reaching highest can guide others and pull others from the chasms of error. The world's greatest men have been the ones who fought error to the bitter end. Dissatisfaction over error has led to the search for truth in many lines. For those who spend their lives in this work can any commendations be too high? God only can reward them. The greatest light that the world has ever known in the search for truth was Charles Darwin—the greatest naturalist. He succumbed to no obstacles. He spent years in searching, from the icy regions of the north to the torrid sun of the equator; from the snowy caps of towering mountains to the unlighted depth of the ocean, and when he first gave his truths to the world, he received nothing but ridicule—but now he is the honored victor.

Since others have fought for the truth, cannot we? If others greater than us have devoted their lives and energy to find truth, cannot we follow them to some extent? There is but one answer. Truth is the only thing that we can leave behind that will aid the world. If we cannot add truth, we can tear down error. Thus, and thus alone, can we fill our true place on this earth.

The last number, the play, "The Parable of the Preps," consisted of five scenes or acts and illustrated the arrival at college, his first experience in snipe hunting, mounting botany specimens, band practice, and examinations.

This closed one of the most enjoyable entertainments of the year. Every one was pleased with the representative work of the Society and felt repaid for coming.

MINNIE SPOHR.
O. E. NOBLE.



Entomological and Zoological Notes.

J. H. Blachley is a special student in zoölogy during the latter half of the winter term.

Miss Ella Weeks finds time from her regular work in which to study taxidermy. Some very good bird skins and a nicely mounted crow are to be found in the taxidermy room as evidences of her ability in this line.

J. B. Norton spends the afternoons not devoted to his industrial in entomological work. C. W. Pape is kept busy in the taxidermy room.

The large collection of insects taken last summer has been systematically labeled and numbered, and the work of recording in the new museum records is almost completed.

The fine weather up to Saturday afforded excellent opportunities for observation upon the habits of the spring canker worm which was so destructive in orchards last year. Experiments upon methods of prevention and destruction are being carefully made, and notes as to results will be made public later.

The shelving of the museum cases now allows the arrangement of one case of birds, while numerous stored specimens await the completion of the other cases.

F. O. Popenoe contributes to the geological museum a rich specimen of gold-bearing quartz from Montana.

J. W. Holland, '96, writes from Oneida, Idaho, accompanying his letter with "geyser eggs," specimens of limestone pebbles worn by the action of the geyser at Soda Springs, Idaho, from which they were obtained. Other specimens were included in the donation, among them being some Stratiomyid larvæ living in the water in holes in the rocks apparently bored by the insects.

Since January 1st, the following specimens have been donated: Marsh hawk by Harvey Thackrey;

two pine siskins; tree sparrow. American gold-finch; flicker, red-shafted flicker, long-horned shore lark; three American bull finches; two harris sparrows; two towhees; jack-rabbit, by F. A. Marlatt; two harris sparrows; two harris finches; snow bunting, by Prof. Popenoe; pileated woodpecker, by A. N. Ayers; Stockdale; red-winged woodpecker, rabbit, Wilson's snipe, by F. V. Dial; English sparrow, by C. W. Pape; jack-rabbit, by I. T. Graham; quail, bluebird, by Messrs. Newell and Zimmerman; Wilson's snipe, by C. M. Breese; two wood rats, by R. H. Kimball; common rat, Norway rat, by Mrs. C. M. Breese; two mallards, by Messrs. Thompson and Breese; hairy woodpecker, two long-horned shore larks, three skunks, red squirrel, by Grant Evans.

BERTHA S. KIMBALL.

GENERAL LOCAL NOTES.

Mr. and Mrs. Chase visited their sons in College last week.

Mrs. Kedzie has had letters since January 1st from young ladies of three States—Texas, Arkansas, and Nevada—making inquiries regarding special work in domestic economy.

Rev. Mr. Layton and wife visited College on Saturday in company of Rev. R. M. Tunnell. Mr. Layton is conducting a revival meeting at the Congregational Church.

The Websters are under obligations to Prof. Walters for the handsome drawing from which the engraving for their program was made. The photograph of the exterior was made by G. G. Menke, Third-year.

The Station, in co-operation with the Department of Agriculture at Washington in sugar-beet experiments, is sending out sugar-beet seed to all who will grow the beets and send in a sample when the beets are matured. The Station will pay transportation charges. Those who will take part in the trial are requested to send their names at once to Prof. G. H. Failyer, Manhattan, Kansas.

Prof. Walters lectured in Chapel on Saturday afternoon on "Health and Wealth." He gave many hints for the preservation of health, chiefly along hygienic lines. He strongly urged the avoidance of nostrums so largely used of late years as panaceas for all ills, and said that in fresh, pure air, sunshine, and proper exercise almost every person had practically a preventive of disease. The audience was made to understand that health is wealth.

GRADUATES AND FORMER STUDENTS.

C. R. Hutchings, '94, will close his school at Pomona, Kans., in a few weeks.

E. A. Donaven, '94, is one of the graduating class of the University Medical College of Kansas City.

E. L. Frowe, '94, and D. C. Arnold, Third-year in 1893-4, both of Louisville, attended the Webster Annual.

S. H. Creager, '95 proof-reader on the Kansas City Journal, spent Saturday at the College and attended the Webster annual.

J. B. Brown, '87, is located at the Pottawatomie Indian School, Hoyt, Kans., where he has just been transferred from Ponca, Oklahoma.

Minnie H. Cowell, '88, writes to Miss Pearce from Luxor, Egypt, a letter of much interest, extracts from which will be printed in these columns later.

W. O. Peterson, '97, writes from Odell, Neb., of pleasant work in his school. From the proceeds of a recent basket dinner, he has purchased the nucleus of a school library.

J. E. Thackrey, '93, writes from DePauw University, Greencastle, Ind.: "I am still in the School of Theology of DePauw University. Mrs. Thackrey (Elva Palmer-Thackrey) is taking special work in Greek and Biblical History in the School of Theology. We are getting along nicely. I have an excellent student pastorate. I am almost through the course, but on account of having to take extra work, will not get my degree till one year from June. I have done about three years' work in two."

Notes from the Kitchen Laboratory.

Many visitors from the Conference found things of interest in both office and kitchen.

The Second-year girls finished taking lectures on cake Wednesday. The lectures were supplemented by demonstrations on the fillings of the different kinds of layer cakes.

From thirty to forty students and professors take lunch daily in the kitchen. On Saturday the number is increased to sixty.

The classes in the kitchen laboratory are trying their hand in pie making. Three kinds, typical of three classes, are being made—apple with two crusts; custard with one crust, the filling being cooked with the crust; and lemon, the crust baked first and the cooked, filling with the meringue, then added.

Refreshments for two parties were prepared in the kitchen this week, thus giving practice in the making of food often too expensive for the ten-cent lunch. Brick ice cream, cheese straws, ham-sandwiches, angel food, and meringue creams were among the dainties prepared.

Mr. Clothier, of the Botanical Department, brought over two microscopes for the use of a class which was listening to a lecture on yeast Saturday morning. The growth of the yeast was well shown, and interest in the lecture was much increased by the sight of the individual plant.

A beautiful Easter lily, grown in the department, did duty as the floral decoration for the table Friday noon.

IVY F. HARNER.

COLLEGE ORGANIZATIONS.

Student Editors—R. W. Bishoff, O. E. Noble, Wilhelmina Spahr.

Y. M. C. A.—President, S. J. Adams, '98; Vice-President, G. D. Hulett, '98; Recording Secretary, O. S. True, '99; Corresponding Secretary, J. M. Pierce, '98; Treasurer, R. B. Mitchell, '99.

Y. W. C. A.—President, Emma Finley; Vice-President, Maggie Correll; Recording Secretary, Ethel Wolfley; Corresponding Secretary, Mary Waugh; Treasurer, Lucy Cottrell.

Alpha Beta Society—President, E. Shellenbaum; Vice-President, Alice Shofe; Recording Secretary, Eva Philbrook; Corresponding Secretary, W. A. McCullough; Treasurer, F. J. Rumold; Critic, J. M. Westgate; Marshal, L. B. Jolley. Meets every Saturday afternoon in south Society hall.

Ionian Society—President, Gertrude Lyman; Vice-President, Mary Norton; Recording Secretary, Dora Shartel; Corresponding Secretary, Maude Barnes; Treasurer, Nannie Williams; Critic, Winifred Houghton; Marshal, Mary Waugh. Meets every Saturday afternoon in north Society hall.

Hamilton Society—President, L. G. Hepworth; Vice-President, V. Maelzer; Recording Secretary, Wm. Anderson; Corresponding Secretary, G. G. Menke; Treasurer, B. H. Shultz; Critic, W. L. Hall; Marshal, A. F. Klusley; Board of Directors, A. C. Smith, S. J. Adams, H. M. Thomas, G. F. Farley, F. O. Woestemeyer.

Webster Society—President, R. W. Bishoff; Vice-President, J. E. Trembley; Recording Secretary, Earl Butterfield; Corresponding Secretary, E. B. Patten; Treasurer, M. H. Horn; Critic, F. H. Meyer; Marshal, G. W. Owens; Board of Directors, S. Dolby, F. Zimmerman, G. G. McDowell, L. P. Keeler. Meets every Saturday evening at 7:30 in south Society room.

March 13th.

At 2:40 President Shellenbaum called the Alpha Betas to order. Misses Tannehill and Agnew opened the program with a vocal duet. May Pierce led in devotion. Under initiation of members, Mr. Collins became an Alpha Beta. T. B. Jolley gave a humorous declamation, which was appreciated by all. The next number was a male quartette composed of Messrs. Clothier, Hulett, Crowl, and Crowl. "Luck and Labor" was the title of a carefully written essay by Laura Pritchard. The question for debate, "Resolved, That the State should issue a limited amount of paper money, redeemable by taxation, and expend it in employing idle men on building good roads," was argued affirmatively by R. W. Clothier and negatively by J. M. Westgate. The Gleaner, with Inez Manchester as editor, contained a number of well-written articles. The Society then took an minutes recess, after which Adelaide Wilder rendered a piano solo. Under extemporaneous speaking, the Society had the pleasure of listening to two worthy Hamiltons, Messrs. Farrar and Farley, who happened to be present. Miss Ivy Harner, an ex-Alpha Beta, also gave a short talk. The usual business was transacted and the Society adjourned.

W. A. M.

March 6th.

There is something in an opening song which brings all the girls together, minds and hearts, and rouses into action that interest and love of our Society which may have lain dormant for a week. Love of Society means love of one another, and interest in Society means to do all in our power for its advancement. It was evident that the Ionians on duty for Saturday afternoon felt at least the required interest for the program was well rendered. After the song and invocation, Miss Stump recited "My first singing lesson," and it was certainly an amusing experience. A vocal solo by Miss Perry followed, and then came the Oracle. The editor, Anna Pfuetze, deserves unlimited praise, for it is one of the best papers of the term. Hope Hathaway played a very pretty solo, and next was extemporaneous speaking on the subjects, "Suggest some plan by means of which Society interests may be promoted" and "What means duty to our Society?" Miss Correll gave a talk on the first, and as it was a subject all had seriously thought over, interesting remarks by many of the girls followed. Miss Finley led on the second subject, and it was then discussed generally.

Rena Helder, always gladly welcomed, played a couple of pieces on our piano, which has lately been tuned and after a short business session, the meeting was adjourned.

B.

March 6th.

President Bishoff brought down the gavel promptly at 7:30 and the Websters settled down to an evening's enjoyment. After prayer by T. W. Allison, the Society went into legislative session. Party lines were strictly drawn, as was shown by the election of reading clerk. The vote was taken by tellers in true legislative fashion. The house then proceeded to its work of legislation. Bill No. 1 was read taken up and passed. Bill No. 2 was read and sent to the committee of grave-diggers. Bill No. 3 afforded more amusement than any other. It read as follows: Be it enacted, Art. I, Sec. 1, that all old maids shall be limited to four cats and two and one-half canary birds each. Sec. 2. Every bachelor over twenty-five years of age shall be taxed two dollars (\$2.00) per week for the support of an old maid's home. Sec. 3. Every girl who refuses to go to the Annual with a Webster shall be fined three (3) kisses. Many able speeches were delivered on either side. Mr. Shultz of the Hamilton Society was called and gave his views of the bill in a highly entertaining manner. The opposition succeeded in adjourning the session before the final vote was taken. After recess the usual order of program was taken up. D. S. Burgess recited the thrilling story of John Maynard. Mr. Davidson read an interesting essay on Columbus and his discoveries. Ross Long discussed the subject of inter-collegiate debates. The Society was then favored with a song by Mr. Putnam, an ex-Webster. Under business, the trials of several members were taken up, but the Webster judiciary seemed to be in a lenient mood, for they all came off scot free. R. J. P.

March 13th.

The Y. W. C. A. opened Saturday by singing numbers 31 and 41 in Pentecostal hymns. The leader, Mary Waugh, read as scripture lesson the twelfth chapter of Romans, taking for the subject of a short talk verses four and five. Maggie Correll led in prayer. After singing two verses of number one, a few short talks were made, and the remainder of the meeting was given up to business.

M. W.

How Best to Utilize the Farm.

Every acre of land the farmer has should be of value. The drainage should be good. He should understand the nature of his soil so well that he knows what each field is best for raising. There is nothing like being informed in one's profession.

Farmers must read good papers on farming if they would do the best. Poor fences, poor stock, poor crops are unnecessary to a farmer who knows his business. More fail, says an unidentified exchange because of poor management than from any other cause. It is almost true that farmers are born, not bred. It does not pay of late years to raise grain, as there is already an over production, thirty and forty acres of wheat making the platter out of pocket.

This keeps him from the use of his land at only \$5.40 to the acre. No wonder the mortgage grows until it is large enough to swallow everything! One should raise just enough wheat for his own use. He should raise every kind of fruit to which his land is adapted. Strawberries are more paying than potatoes. While the farmer is waiting for his fall crops, his small fruit is turning into money.

Too many make a specialty of some one thing. As a result their loss is heavy if there is an over production of the product. Plant every variety that is suitable to the land. The soil should be kept in good condition. No weeds should be allowed to go to seed. Orchards should be sprayed. Never spend a cent with out selling something that will bring in another. Keep a variety of fine stock. Have a number of fat porkers to sell in the spring. Be sure that the poultry-house is warm during the winter. Fowls will then lay during the winter months, when eggs bring the most. In March they sit. Nothing pays better than spring chickens. The farmer should buy nothing that he can raise, for no one will sell an article without a profit. Shall the farmer raise such articles and get the profit, or shall he pay some one else for doing his business? Have a hothouse. Early vegetables find a good market. It requires shrewdness to know when to sell. Farmers should watch the market as close as do Wall street speculators. Some farmers do not sell until the market is surfeited and produce is at a beggar's fee. Not until a man devotes all his talent to his profession will he succeed.—*Oregon Agriculturalist*.

Co-operation on the Farm.

It is natural for fathers to complain as old age comes on, and they find themselves left alone with decreasing power to combat the difficulties of life. But if some do not choose to remain at home are they wholly to blame? In the complaints that the boys brought up on a farm leave as soon as they come of age, if not before, we generally ask if they had any inducement to do otherwise. Usually the answer is that there was none. A father who wants to have his son a help to him in his old age ought to begin early to train him to interest himself in the farm. Let the boy see that he is really a partner in the firm, and unless natural aptitudes draw him too strongly away from it it will probably make him love it quite as does the father himself. It is a great mistake to suppose that the old farm is not large enough for subdivision, in most cases, when sons and daughters marry and find need to establish homes of their own. If it is found that more land is needed, it can usually be bought to better advantage in the immediate neighborhood than will result in dispersing a united family. There is a great gain in farm co-operation, and it is best secured in many localities by the combination of farmers in whom affection supplements the argument based on pecuniary interests.—*Correspondent Agricultural Epitomist*.

Farming for a Living.

There is no gainsaying the fact that if farmers would farm more for a living and not simply to make money, they would live better and make more money too. The essential thing to do, and it is of prime importance, is to produce all the food crops on the farm that are necessary to sustain the necessary laborers and stock and a surplus for market. On farms remote from market, farmers cannot successfully diversify their agricultural pursuits. With the establishment of good roads and manufacturing enterprises throughout the country, the demand will be increased and the ability to transport products enlarged.

But it will pay the farmer to rotate his crops and diversify them sufficient to meet his own wants at home. Let him not only build up his home, but his land. No handsome residence with all the evidences of thrift and happiness, looks in place on a farm whose soil is depleted of humus and given over to briars and bramble.—*Southern Cultivator*.

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Professor of History and Political Science.
CHARLES C. GEORGESON, M. S.,
Professor of Agriculture,
Superintendent of Farm.
ERNEST R. NICHOLS, A. M.,
Professor of Physics.
NELSON S. MAYO, D. V. S., M. S.,
Professor of Physiology and Veterinary Science
JULIUS T. WILLARD, M. S.,
Associate Professor of Chemistry.
ALBERT S. HITCHCOCK, M. S.,
Professor of Botany.
SILAS C. MASON, M. S.,
Professor of Horticulture,
Superintendent of Orchards and Gardens.
MISS JOSEPHINE C. HARPER,
Instructor in Mathematics
MISS ALICE RUPP,
Instructor in English.
HARRY G. CAVENAUGH, Captain 13th U. S. Infantry,
Professor of Military Science and Tactics.
THOMAS E. WILL, A. M.,
Professor of Political Economy.
MISS JULIA R. PEARCE, B. S.,
Librarian.

ASSISTANTS AND FOREMEN.

C. M. BREESE, M. S., Assistant in Chemistry.
GRACE M. CLARK, B. S., Stenographer in Executive Office.
BERTHA WINCHIP, B. S., Assistant in Sewing.
WM. BAXTER, Foreman of Greenhouses.
W. L. HOUSE, Foreman of Carpenter Shop.
ENOS HARROLD, Foreman of Iron Shops.
GEO. SEXTON, Foreman of Farm.
C. A. GUNDAKER, Engineer.
A. C. MCCREARY, Janitor
JACOB LUND, M. S., Fireman and Steam Fitter.

ASSISTANTS IN EXPERIMENTAL STATION.

F. A. MARLATT, B. S., Entomology
F. C. BURTIS, M. S., Agriculture.
D. H. OTIS, B. S., Agriculture.
GEO. L. CLOTHIER, B. S., Botany
I. JONES, B. S., Horticulture

SMOKELESS POWDER.

BY H. G. CAVENAUGH,
(Captain Thirteenth Infantry, U. S. A.)
Professor of Military Science and Tactics.

THE discussions on the relative advantages and disadvantages of the new powders, with which the military papers of all countries have been filled for the past few years, reveal in a most striking manner the spirit in which fighting is reviewed in the different armies concerned. This spirit is the outcome of the system of training in each.

It may be generally stated that the tendency in England, France, and Austria has been to consider the advantages of its introduction to the side of the defensive, and to prophesy an alarming increase in the slaughter of the battles in the future. In Germany, the contrary view is held; there, with but few exceptions, it has been pointed out that, inasmuch as the absence of smoke facilitates the control of the men of the fighting line, that side which goes into action, intent on destroying its adversary, and not thinking of how to avoid destruction, is much more certain than ever to ultimately effect its object.

The views advanced in the former countries rest on the fundamental misconception of the causes on which heavy losses depend, attributing them rather to the mechanical perfection of the arms or to the obstinacy of the men who use them; and by concentrating their attention on the one object of avoiding losses, they lose sight of the ultimate aim of all fighting, namely, the defeat of the enemy's army.

By reference to military history, it will be seen that losses inflicted in battle have only indirectly been affected by the nature of the arms in use, but have been simply conditioned by the relative fighting excellence of the two armies engaged. Where both have consisted of war-seasoned veterans, trained to the highest pitch of efficiency, losses of about thirty per cent have not been found sufficient to win a victory; for the troops fought till from sheer physical exhaustion they were compelled to stop, and neither had energy to attempt a pursuit.

The fact is, every body of troops possesses a certain capacity for resisting loss, and this capacity varies with their discipline and the fighting qualities of the race. Unequal armament affects the worse armed side naturally; but with equal armament, troops will fight until their capacity for endurance is exceeded, and then they will stop, and nothing more can be gotten out of them.

Two armies, both trained on the same system, might go on worrying each other almost indefinitely with the greatest possible economy of men on the battle-field, but also without any decisive result being obtained; and the results would be the same, whatever nature of the arms employed. To such troops, the value of the smoke screen is most obvious, for behind its veil thousands of unwounded stragglers could remain, only to turn up safe and sound for the evening meal; but to soldiers filled with the determination to kill and keep on killing, the absence of the smoke-cloud can only be welcome. Their own movements are, no doubt, more visible to the enemy; but this is more than compensated for by the clearly defined target it gives them to aim at.

It must be remembered that smokeless powder has not yet undergone the actual test of war. It would seem certain, however, that it will materially affect the accuracy of fire. The distinctness of the target is a matter of the greatest importance to artillery, as the value of this arm depends upon its ability to hit the object aimed at. Bodies of troops in the open can be more plainly seen than formerly, and infantry and cavalry will no longer be able to make sudden dashes on the artillery under cover of the smoke-screen. The aiming of the guns being no longer disturbed by their own smoke, the advantage will be greater for the artillery than any other arm of the service. Experience has taught that, although artillery is the youngest of the arms, it is rapidly taking the lead as the most important in its power of demoralization; and with demoralization comes defeat.

How many conditions are happy; childhood is happy, and youth is prevailing happy, and prosperity hath its joy, and wealth its satisfaction, and the warm blood that flows in the ruddy cheek and sinewy arm of honest poverty is still a better gift. No song is so hearty and cheering—none that steals forth from the windows of gay saloons—as the song of the honest labor among the hills and mountains. Oh! to be a man, with the true energies and affections of a man—all men feel it to be good.—*London Echo.*

Legislation Affecting the College

SUBSTITUTE FOR HOUSE BILL NO. 165.

By Ways and Means Committee.

AN ACT MAKING APPROPRIATION FOR DEFICIENCY IN THE CURRENT EXPENSES OF THE KANSAS STATE AGRICULTURAL COLLEGE FOR THE FISCAL YEAR ENDING JUNE 30, 1897.

Be it enacted by the Legislature of the State of Kansas:—

SECTION 1. There is hereby appropriated out of any money in the State treasury not otherwise appropriated, the sum of ten thousand dollars (\$10,000), or so much thereof as may be necessary, to be expended under the direction of the Board of Regents of the Kansas State Agricultural College in meeting obligations for current expenses already incurred, and additional expenses for the balance of the fiscal year ending June 30, 1897.

SECTION 2. The Auditor of State is hereby authorized to issue his warrants for the amount named in Section 1 of this act upon presentation of vouchers duly approved by the Secretary and Treasurer of the Board of Regents of the Kansas State Agricultural College.

SECTION 3. This act shall take effect and be in force from and after its publication in the official State paper.

SENATE BILL NO. 388.

AN ACT MAKING APPROPRIATION OF INTEREST RECEIVED FROM THE PERMANENT FUND OF THE KANSAS STATE AGRICULTURAL COLLEGE, AND FOR CURRENT EXPENSES OF SAID INSTITUTION FOR THE FISCAL YEARS ENDING JUNE 30, 1898, AND JUNE 30, 1899.

Be it enacted by the Legislature of the State of Kansas:—

SECTION 1. All money in the hands of the State Treasurer during the fiscal years ending June 30th, 1898, and June 30th, 1899, received as interest on land contracts, bonds, or other evidences of indebtedness, belonging to the permanent fund of the Kansas State Agricultural College, is hereby appropriated for the support and maintenance of said College under direction of the Board of Regents of the Kansas State Agricultural College, as provided in the act of Congress approved July 2, 1862.

SECTION 2. The Auditor of State is hereby authorized to draw his warrants on the State Treasurer for any money specified in Section 1 of this act, upon presentation of orders signed by the President and Secretary of the Board of Regents of the Kansas State Agricultural College.

SECTION 3. This act shall take effect and be in force from and after its publication in the Statute book.

SUBSTITUTE FOR HOUSE BILL NO. 216.

AN ACT MAKING APPROPRIATIONS FOR BUILDINGS, IMPROVEMENTS, AND APPARATUS AND CERTAIN EXPENSES AT THE KANSAS STATE AGRICULTURAL COLLEGE FOR THE FISCAL YEARS ENDING JUNE 30, 1898, AND JUNE 30, 1899.

Be it enacted by the Legislature of the State of Kansas:—

SECTION 1. The following sums, or so much thereof as may be necessary for the purposes named, are hereby appropriated out of any money in the State Treasury not otherwise appropriated, to be expended under direction of the Board of Regents of the Kansas State Agricultural College: For the fiscal year ending June 30, 1898, for completing metal roof of barn, five hundred dollars (\$500); for completing a system of electric lights for several buildings, five hundred dollars (\$500); for a sixty-horse-power steam boiler, four hundred and fifty dollars (\$450); for machine tools in the iron shop, five hundred dollars (\$500); for a clothes room attached to the iron shop, one hundred and fifty dollars (\$150); for completing the telephone system between buildings, one hundred and fifty dollars (\$150); for repainting metal roofs, two hundred dollars (\$200); for general repairs upon ten buildings, one thousand dollars (\$1000); for renewing farm fences, one hundred and fifty dollars (\$150); for farm implements and machinery, two hundred dollars (\$200); for horticultural tools and implements, one hundred dollars (\$100); for additional furniture in library, including catalogue case, two hundred dollars (\$200); increase of library, one thousand dollars (\$1000); additional furniture for class rooms, two hundred dollars (\$200); for collection, preparation, and preservation of specimens in agricultural museum, two hundred dollars (\$200); in horticultural museum, two hundred dollars (\$200); for furniture, models, and patterns for the Department of Industrial Art, three hundred dollars (\$300); for charts and illustrations, in the Department of English, one hundred dollars (\$100); in the Department of History, one hundred dollars (\$100); for fire protection, hose and extinguishers, three hundred dollars (\$300); for occurred and occurring rent, one thousand dollars (\$1000); for building and equipping Domestic Science Hall, sixteen thousand dollars (\$16,000).

For the fiscal year ending June 30, 1899: For general repairs of ten buildings, one thousand dollars (\$1000); for farm tools and implements, one hundred dollars (\$100); for horticultural tools and implements, one hundred dollars (\$100); for renewing and extending fencing, one hundred and fifty dollars (\$150) for collecting, preparing, and preserving museum specimens, agricultural, two hundred dollars (\$200); horticultural, two hundred dollars (\$200); for furniture, patterns, and models for the Department of Industrial Art, three hundred dollars (\$300).

SECTION 2. The Auditor of State is hereby authorized to issue his warrants upon the Treasurer of State for the purposes and amounts specified in Section 1 of this act, upon presentation of vouchers duly approved by the Secretary and Treasurer of the Board of Regents of the Kansas State Agricultural College.

SECTION 3. This act shall take effect from and after its publication in the Statute book.

HOUSE BILL NO. 217.

AN ACT MAKING APPROPRIATIONS TO THE KANSAS STATE AGRICULTURAL COLLEGE FOR CURRENT EXPENSES, FOR FREIGHT AND HAULING COAL, WATER SUPPLY, SALARY OF LOAN COMMISSIONER, AND INCIDENTAL EXPENSES IN CARE OF FUNDS, FOR THE FISCAL YEARS ENDING JUNE 30, 1898, AND JUNE 30, 1899, AND DIRECTING THE EXPENDITURE OF OTHER FUNDS PROVIDED BY LAW FOR THE SUPPORT OF SAID INSTITUTION.

Be it enacted by the Legislature of the State of Kansas:—

SECTION 1.—There is hereby appropriated out of any money in the State Treasury, not otherwise appropriated, for current expenses of the Kansas State Agricultural College for the fiscal year ending June 30, 1898, five thousand dollars (\$5,000); for the fiscal year ending June 30, 1899, five thousand dollars (\$5,000).

SECTION 2.—There is hereby appropriated out of any money in the State Treasury not otherwise appropriated the following sums, or so much thereof as may be necessary, to be expended under the direction of the Board of Regents of the Kansas State Agricultural College for the fiscal years ending June 30, 1898, and June 30, 1899:—

Freight and hauling of coal.....	1898.	1899.
Water.....	500	500
Salary of Loan Commissioner.....	300	150
Incidental expense in care of funds.....	150	150

SECTION 3.—The Board of Regents of the Kansas State Agricultural College are hereby empowered and authorized to employ professors to fill the various chairs said Board of Regents may establish and maintain, and also to employ instructors, assistants, and foremen of the various departments, at salaries for each school year not exceeding the following schedule, to wit: President.....\$2600 1 Janitor.....\$720 3 Professors, each.....1800 3 Ass'ts Ex. Sta., each.....720 1 ".....1650 Engineer.....720 10 " each.....1450 Librarian.....720 Secretary.....1200 Fireman and Steam Fitter. 600 1 Professor.....1200 1 Assistant, Exp't Sta.....600 1 Asst. Professor.....1200 1 foreman.....500 Sup't of Printing.....900 Stenographer Ex. office.....420 Sup't of Sewing.....800 Clerk, Secretary's Office.....300 3 Instructors & Ass'ts, each.....800 1 Assistant.....270 3 Foremen.....720 One Asst. for Ex. Sta.....480 and such other persons or salaries, corresponding to the salaries already named in this act for a similar grade of work, as the necessities of the institution may demand.

The Board of Regents shall also have power to employ persons to do such work on the farm, in the shops, stables, greenhouse, orchard, and in care of live stock, as the needs of the institution may require.

The Board of Regents are authorized to employ student labor, and to pay students for industrial work: Provided, that under

no circumstances whatever, either directly or indirectly, the Board of Regents shall expend, or contract to expend, for salaries, labor, material, and other supplies, or for any other purpose whatever, a sum larger than the sums appropriated by the Congress of the United States and the Legislature of the State of Kansas for each fiscal year.

SECTION 4. The Auditor of State is hereby authorized and directed to draw his warrants in favor of the Treasurer of the Board of Regents above named, for the sums mentioned in Section 1 of this act, upon order signed by the President and Secretary of said Board; and for the amounts mentioned in Sections 2 and 3 of this act upon presentation of vouchers duly certified by the Treasurer and approved by the Secretary of the said Board, and showing that the items named cannot be provided for by funds in the College treasury.

SECTION 5. This act shall take effect and be in force after its publication in the Statute book.

SENATE BILL NO. 547.

AN ACT TO PROVIDE FOR THE GOVERNMENT OF THE KANSAS STATE AGRICULTURAL COLLEGE.

Be it enacted by the Legislature of the State of Kansas:—

SECTION 1. The government of the College is vested in a Board of seven Regents, all of whom shall be appointed by the Governor, and confirmed by the Senate, and whose term of office shall be four years. Five of said Regents shall be appointed on or before the first day of April, 1897, one of whom shall hold his office until the first day of April, 1899, and four of whom shall hold their office until the first day of April, 1901; two shall be appointed on or before the first day of April, 1898, to hold office until the first day of April, 1899, and on or before the first day of April, 1899, and every four years thereafter previous to the first day of April, three Regents, and after the first day of April, 1897, four Regents shall be appointed by the Governor and confirmed by the Senate for a term of four years each, their terms expiring on the first of April.

But nothing in this act shall be construed so as to restrain the Governor from appointing Regents before the expiration of the regular legislative session.

Whenever any vacancy shall occur in the said Board of Regents, it shall be the duty of the Governor at once to appoint some suitable person to fill the vacancy. And when any appointment is made while the Legislature is not in session, the appointee shall hold his office until action is taken upon his appointment by the Senate; and if the Senate fails to take action thereon, his term of office shall expire at the close of the session, and the Governor shall fill the vacancy as in other cases.

SECTION 2. No one connected with the College as professor, tutor, teacher, or employee, shall be a Regent.

SECTION 3. The Regents shall elect a President, who shall be the chief officer of the College, and the head of each department thereof, and the Secretary of the Board of Regents, and whose duties and powers, otherwise than as prescribed in this act, shall be prescribed by the Board of Regents.

SECTION 4. All acts and parts of acts in conflict with the provisions of this act are hereby repealed.

SECTION 5. This act shall take effect and be in force from and after its publication in the *Topeka State Journal*.

ASKED AND ANSWERED.

A Pessimist's View of Agricultural Education.

Pessimism is to be hated just enough to keep its spirit well at arms length, and yet the pessimist is perhaps a necessary balance wheel to the optimist who would plunge us into all sorts of extravagances in the ecstasy of his hopes. Wilbur Aldrich, through the columns of the *New England Farmer*, has given us a dismal view of the lot of the graduates of our agricultural colleges. As he represents a class, and the largest class of agriculturists, we will hear him. He says our agricultural colleges make ten times the number of lawyers that they do farmers. And while not recognizing the making of lawyers as the functions of these colleges, he turns the corner sharply and enquires:—

"Why should we try to educate farmers? Is it not a fact that the education of farmers' sons almost invariably draws them away from the farms? And is it not reasonable that it should? What career is there for an educated man in agriculture? If he can go out and purchase a little two or three thousand dollar farm, paying part cash, he is fortunate. After that, he directs his own work with his one or two thousand dollar education. His dairy of a dozen cows pays him a few dollars better each year on account of his expert knowledge. He makes a little more in other directions in the same manner. But the principal thing he experiences, besides his exhausting toil, is his utter inability to do the things he has learned should be accomplished. The common every-day farmer knows enough of that desolating feeling. Both know that the draining of the land is necessary, and would be profitable. One knows somewhat better how to do it than the other, but the back of neither will hold out to dig the ditches, or enough of them in any one season, and it is never done.

"With all the educated farmer's knowledge and capital invested in farm and education, he cannot make or earn as much as a city bricklayer or huckster. He knows the farming business, but he cannot branch out and pay business wages, because he is not doing business. The farmer graduate therefore properly goes into some other business. Suppose, however, he has no money or credit, as many another college man has none, and looks for a situation upon a farm. But how many farms are there which require the services of a high priced expert? A few—a very few. He might be employed by some absentee proprietor to manage the farm, but ordinarily a more experienced slave driver is required, or one who can do most of the work himself. A Swede is usually preferred. Our student of course does not care to take charge of a 'gentleman's place.' As ordinary farm hand, he would be no better than any stalwart emigrant, and he were better without his education."

Mr. Aldrich considers the possible openings on farms for college graduates, discusses division of labor under corporate bodies, and winds up with the following remark: "The colleges should be able to turn out men who can take their parts in such a division of labor in agriculture, and thus give their services directly to farmers and farming; and that can only be done successfully and equitably when farmers are organized into farming corporations."

Corporate farming is one of the dreams of socialists, and there are slight indications that in a modified way such farming may be realized in the future. Yet it seems to us that Mr. Aldrich entirely misses this mark in his discussion of the education of the farmer. He looks at it wholly from the standpoint of the individual, having the sole aim of securing a soft job, and rising above the rest of the world. The

State is the founder of these institutions, and its conception of the educated farmer is that of the enlarged man capable of ennobling his industry by the application of mind, thereby broadening the source of industrial wealth, not alone in agriculture, but in all the industries that it feeds and energizes.

The ideal man is not he who, with gloved hands beneath an umbrella, stands about to direct this man or that man where he shall sweat in manual labor, but the man who, with mental activity, not only directs the muscles of others, but points out the spot where his own normal physical powers can be best expended. If mental activity is healthful for the mind, so is physical activity for the body, and the two working together give the symmetrically developed man. Nature has not arbitrarily divided men into two classes, mental and physical workers, these distinction being purely artificial. Mental and physical labor joined together are not unnatural. Digging a ditch is constructive work, and part of the rhythm of farm life—for is it not a part of the plot, of the drama of farm management essential to the harmonious working of the whole scheme? The man who puts in a ditch, like the poet, is but making the harmony of the parts, and, if he is truly the inspired son of the soil, his mind is on the object of the ditch, and scarcely considers the muscular effort to construct it. Indeed, if he does not overwork, the act of constructing it is a tonic to the body.—*Mirror and Farmer*.

Stick to the Farm.

Were we able to live life over, we might possibly atone for the mistakes made on our first effort, but an all-wise providence has ordained we can pass this way only once, so we should travel with our eyes open.

The chief study of man is to know himself. Into no condition of life seems this principle so well engrafted as that of the farmer. In debt for his farm, or paying a high rent, crops failing, stock dying, and the profits but little, if any, above expenses, he longingly looks toward the city for a business opening into which he might put a limited capital, and hasten on from financial embarrassment to opulence. This is the dream, but oh! the awakening! It is worse than a nightmare. With everything to buy, living expenses high, and the requirements of trade to be met, he faces distress, failure, and despondency at every turn. The majority of farmers or their sons going into mercantile business either fail or make little headway toward independence. Noting many such failures, I presume they would have succeeded better if they had remained on the farm. The coming generation, then, must be looked to for the active controlling influence in agriculture. Farming is one of the most independent and ennobling of all occupations. With good soil, plenty of push, and a good degree of sense, one cannot fail to see in it the *ne plus ultra* of vocations. I wish it were in my power to paint in words, with the vividness of an autumn sunset, the glories of farm life, that I might persuade some to seek the reputation even of an average farmer rather than that of the inferior professional man.

I see so many good farmers spoiled in the attempt to make smart professional men, that I cannot sound this warning too loud. With all the advantages of farm life, after the common branches are mastered in the district school, and perhaps a course of study in a higher school, no field opens such possibilities and happiness as the farm, to say nothing of the opportunities for usefulness, leisure, and amusement. Assiduous study, not only of various theories of farming, but of the sciences upon which they are based, becomes not only necessary, but possible to every one. The average farmer boy wastes time enough, that, if put to account, would become a mine of wealth, both to himself and all who will depend upon him in future years. Let all take pride in the duties of the farm. Employ all your faculties toward planning for future emergencies, as well as the present. Do not let any power go to waste—become familiar with every detail on the farm, keep posted on current events, keep the cobwebs brushed out of the corners of your mind, do not allow yourselves to get behind. Such preparation and vigilance are calculated to insure success, not only in a financial way, but in the way of contentment and domestic tranquility that are strangers to a shiftless farmer and his burdened household. With no other thing can so much be accomplished as this. Let the light of heaven illumine the house, the stable, the wood-shed, the work-shop, the cellar—let light of intelligence, that forerunner of prosperity, take possession of the mind, and the light of contentment will shine over all. Such are the conditions of success not to be ignored, but rather to be cherished, and once made the foundation stone of rural life, render, after years of plenty, happiness and joy. So boys, stick to the farm.—C. W. Norris, in *Agricultural Epitomist*.

Creative Power of the Kinetoscope

An odd experiment with the kinetoscope took place not long ago in Boston. The subject was a man eating dinner, and the film, prepared especially for the occasion, was of unusual length, so that the whole performance could be recorded. The man entered the room, and, seating himself at a table, proceeded to cut up the food. The motion of the fork from the plate to his lips was carefully recorded, until the last morsel of food had vanished. Then he arose and walked out of the room, leaving nothing on the table but bare dishes. The series of pictures was then reversed. It showed the man entering the room, walking backward. He sat down at the table, upon which there was nothing but bare dishes, and proceeded to extract food from his lips until he had filled the potato dish with potatoes and gradually put

together a steak on the platter before him. Then he calmly backed out of the room and the waiter did likewise with the meal that the man had apparently created.—*Kansas City Star*.

Chances to Rise in the World.

The Pennsylvania Railroad Company has chosen for its President to succeed the late George Roberts, a man who, like Mr. Roberts, began life in a minor position in the employ of the company. George Roberts started as a chainman and became President. Frank Thompson, the newly elected President of the company, was first employed as an ordinary mechanic in the company's machine shops. The careers of these two men furnish an inspiration to the ambitious young man of today who is just making a start in life. The complaint is often heard that the young people of this day do not have the opportunities to get up in the world which were within the reach of the youth of forty years ago. But there is no basis for the complaint. It is true now as it ever was that the man who masters all details and develops a comprehensive knowledge of the requirements of any business is the man who is wanted to manage great undertakings. And it will be as true fifty years from now as it is today. The intelligent, progressive, hard-working chainman or mechanic of today has as good a chance for acquiring wealth and high position in the industrial world forty years from now as these two men had when they were boys, working hard for small wages, forty years ago.

The idea is held by many people that men who have built up great enterprises and grown rich out of them and made their associates rich as well will be succeeded in the management of these undertakings by their pampered sons or by men who can wield the influence of wealthy associates. But it is not true. Something of the genius and the capacity which is required to build up great industrial schemes must continue to control them if they are to go on prospering. Such capacity and genius come from close attention to work; from the ready adoption of progressive methods; from constant watchfulness with a purpose always to do the right thing at the right time and in the right way, and not from such qualities as the sons of rich men usually develop. The great captains of industry of the future are today laboring in the shops and the fields just as the leaders of the great enterprises of today were starting very humbly on their careers thirty, forty or fifty years ago. Conspicuous ability in any line of effort commands higher pay to-day than ever before in the history of the world, and it is rarely that a man with an extraordinary talent for affairs is ever found who did not begin at the very beginning of the work he has mastered, and who did not go through all the stages of it from bottom to top.

It is true of politics, of literature, of professional life of every sort, as well as of iron-making and cotton-weaving and railroad management, that the boy of today who is most likely to acquire a commanding position in life is the boy whose necessities compel him to buckle down to hard work and to learn from long and slow experience the details of his chosen avocation.

As industries become more and more specialized, and the required knowledge of the professional man more extensive, the opportunities of the poor boy to reach high positions in life will broaden out, instead of growing narrower, because it will be the poor boy and not the rich one, whose persistency and patience in acquiring skill and knowledge and the capacity under the spur of his necessities will give him the greater ability to perform the services which responsible positions in the industrial world and in professional life impose.—*Kansas City Star*.

Ornamentation of Home Grounds.

We all like to have our premises look neat and tidy and attractive. Beautiful home surroundings add a great deal to the enjoyment and contentment of the people in the house. Here at Woodbanks we have great stretches of lawn and any amount of shrubbery and trees. People come on the place and admire the park-like plantings. It is nice to have these things, but it is expensive, too. To take the best care of the ground, keep the lawns clipped closely, and the shrubbery dug about, etc., requires much labor. In some cases we have had to let the lawns go unattended until the grass was quite tall, and had to be mowed with an ordinary mower. Possibly this may be just as well for ordinary people like ourselves. Yet, I do like a nice clean, smooth, close-shaven lawn in front of the house as well as a soft carpet in the house. Sometimes we lose sight of the fact that a small but well-kept piece of ground gives far more satisfaction than an extensive but neglected park. Rich people can afford to have acres of lawn and shrubbery. We must content ourselves with smaller plots. Even a few square rods of ground, with a frame of shrubs, etc., may be made a most attractive feature of a modest home. The essential portion is the lawn itself. If this be nice and clean, and kept in the best order, it is beautiful *per se*, and very little shrubbery will answer. It is a great and common mistake to overload the grounds with taller growths. The first thing to do is to make a clean, smooth surface, and have the soil fairly fertile. No use trying to get a nice growth of grass on very poor land. Use any old compost, manure from the blacksmith shop, wood ashes, woods dirt, in short, anything of this kind that may be available, and use it in liberal quantities.—*Farm and Fireside*.

Calendar.

1896-97.
Fall Term—September 10th to December 19th.
Winter Term—January 5th to March 27th.
Spring Term—March 30th to June 10th.
June 10th, Commencement.
1897-98.
Fall Term—September 9th to December 18th.

To School Officers.

The College Loan Commissioner has funds now to invest in school district bonds at par. The law requires that no bonds be sold at par or less without being first offered to the State School Fund Commissioner and the State Agricultural College. Address C. R. Noe, Loan Commissioner, Leon, Kan.

GENERAL LOCAL NOTES.

T. M. Robertson, Fourth-year, is the owner of a new Thistle bicycle.

The hot beds make a good showing of cabbage, cauliflower, and tomato plants.

Ed. Shellenbaum, Fourth-year, showed Ed. Weisdanger, of Randolph, over College Saturday.

Marion and H. G. Gilkerson entertained a large party of student friends on Monday evening last.

Mrs. Larkin, of Phillips County, visited College on Tuesday in company with Mr. and Mrs. Morgan.

G. T. Kirchner was called to his mother's death-bed last week, and will not return to College at present.

Mrs. Brown and Mrs. Thompson entertained the Ladies' Faculty Club on Saturday afternoon, at the home of the latter.

Regent Noe, Loan Commissioner, is making some good investments in Kansas six per cent bonds, and is looking for more.

The scars on the lawns near the Library Building made by the settling of the earth in the trenches are being removed by sodding.

The Kansas University Comedy Company will exhibit at Wareham's, April 2nd, for the benefit of the Dorcas and Kindergarten Societies.

Prof. Walters is called almost daily into consultation with Mrs. Kedzie and Mrs. Winchip, to consider plans for the proposed Domestic Science Hall.

St. Patrick's Day was observed by many students in "the wearing of the green," ribbon and even twigs of pine doing duty in the absence of the shamrock.

The Manhattan Horticultural Society will meet at the College on Thursday afternoon at 2.30. Prof. Hitchcock, Mr. Baxter, and Mr. Moore are on the program.

The east side of the south drive will soon be beautified by the planting of a half dozen or more sorts of shrubs in groups, interspersed with a few evergreens and deciduous trees.

The Horticultural Department has marketed ripe tomatoes for several weeks. The show of ripened fruit leads many visitors to the east propagating pits where it is grown.

Pres. Fairchild attended the meeting of the State Board of Education at Topeka, on Monday and Tuesday. He is elected President pro tem. and will preside in the absence of the State Superintendent, who is President ex-officio.

The Board of Regents is constituted as follows: C. B. Hoffman, Enterprise; C. B. Daughters, Lincoln; C. R. Noe, Leon; Mrs. John P. St. John, Olathe; Harrison Kelly, Burlington; J. N. Limbocker, Manhattan; T. J. Hudson, Fredonia.

A telegram received Saturday announces Mr. Washington Gladden's acceptance of the invitation to deliver our Commencement Day address on June 10th. He will also perform the same duty for the State Normal School on June 8th, and for the State University on June 9th.

Private Graybow, Troop C., Second Cavalry, was at College on Thursday to have a radiograph made of his leg which was broken about four months ago and has since, he says, given him some trouble. A good negative was obtained, but through accident was spoiled before a print could be made from it.

GRADUATES AND FORMER STUDENTS.

H. W. Jones, '88, writes from Alma of plans for future growth and advancement.

Fred Hulse, '93, and Carrie Johnson, student in 1894-95, were married, March 21st, at Keats.

A. H. Hepler, Second-year in 1891-2, graduates, March 28th, from the University Medical College of Kansas City.


Kate Pearce, Third-year in 1893-4, was married, March 16th, to Mr. Horace W. Baker, of Winfield, Ia., the home of the bride.

E. H. Perry, '86, editor of the Perry (Ok.) Enterprise-Times, visited College last week. His paper is the leading journal in Perry, and his office is equipped for a general publishing and blank book business.

H. C. Rushmore, class of '97, delivered a lecture before the Christian Endeavor and Epworth League of Ellis last Saturday evening. Mr. Rushmore is traveling salesman for a Topeka hardware firm, who gives his spare moments to religious work.—*Republic*.

Miss Bessie Little, ['91,] of Manhattan, is giving excellent satisfaction as class instructor at the School of Physical Education. Miss Little is the daughter of Dr. C. F. Little, of Manhattan, and a sister of Mrs. Chas. Dobbs, of Topeka. She is a

graduate of the Anderson Normal School of Gymnastics at New Haven, Conn., and is also a graduate of the normal course of training at Chautauqua, N. Y. She comes to this position very highly recommended by the faculty of both schools. Besides being thoroughly qualified and successful in theory and class work, she is an attractive and cultured young lady whom both pupils and patrons appreciate and admire.—*Topeka Capital*.



Motto:
"Do Noble Deeds;
Not Dream Them."

**Second
Semi-Annual
Appearance**
of the
**Fourth
Third-Year**

**March 20
1897**

Orations
COLLEGE BAND—At the Circus
E. PATTEN—
A Decisive Battle
W. POOLE }
M. SANDERSON }
Debate: Should the Protective Tariff be Abolished?
MUSIC—Quartet, "The Bull Dog"
Hardy Thompson
Hulett Avery
F. WATERS—
A Political Revolution
W. HARDY—
Simon
G. MENKE—
Historical Fact
Ninety-eight,
Green and great.

More Lands for the College.

Dispatches from Washington, D. C., give the following item of interest: "In 1862, the Government ceded to Kansas a lot of lands for Agricultural College purposes, but there was a hitch somewhere, and Kansas came near being defrauded. By the decision just handed down Kansas gets 7600 acres of Agricultural College lands in lieu of that number of acres of double minimum lands."

This refers to claims several times before decided adversely, and once allowed by Congress, but vetoed by President Cleveland. Recently a new ruling in the Government Land Office led Hon. S. J. Crawford to suggest that the claims be again presented. Pres. Fairchild wrote to the Secretary of the Interior as suggested on February 11th, and the conclusion reached appears to have been favorable. The exact deficit was 7,682.47 acres, but a part of this was due to imperfect sections.

A Good Education Pays.

1. In dollars and cents. All testimony of statistics agrees in showing that educated laborers of all ranks have better work and better wages than the uneducated.
2. In influence and position. Careful estimates make it certain that the chances of promotion to places of trust and power among men are almost two hundred times as great to an educated man as to the uneducated man.
3. In usefulness. The bulk of good work in the world—discovery, invention, government, philanthropy, and religion—is brought about by those who learn to think by study.
4. In enjoyment. Our pleasures grow out of what we are ourselves more than from surroundings. A well-trained man sees, hears, and handles a great deal more of the world than an untrained one. All things do him more good, not so much because he owns them as because he understands them. He always has good things to think about.

The College and the Legislature.

Now that the long Legislative session is at an end, friends of the Agricultural College are naturally interested to know how this institution fared at the hands of our law-makers.

The bills in which the College was interested may be classified as follows:—

I. Appropriation bills.—H. R. 216, General Appropriation; H. R. 165, Ten-Thousand-Dollar "Deficiency Fund;" H. R. 217, "Deficiency Fund," \$5,000 for each of the next two years; S. 388, Appropriation of Interest on Permanent Fund.

II. Bills Affecting Permanent Fund.—S. 362, Anthony Compromise; S. 3, Withdrawing Control of Fund from hands of Loan Commissioner and President.

III. Bill affecting powers of Regents and reducing salaries, S. 541.

IV. College Government Bills.—S. 547, H. R. 653. Owing to the illness of the President, the absence in the south of Regent Hoffman, and the failure to realize fully the need of personal work, the College did not begin an active campaign until the session was far advanced, and the battle on some of the highly important items was practically lost. The College "Summary of Needs" as found on pages 15 and 16 of the Tenth Biennial Report of the Regents, presented, on leaving the House, the following appearance:—

ESTIMATES RENEWED FROM REPORT OF 1894.			
Asked.		Granted.	
\$ 500.....		\$ 500	
300.....		Nothing	
20,000.....		"	
7,500.....		"	
1,500.....		500	
600.....		Nothing	
1,750.....		"	
4,500.....		"	
450.....		450	
150.....		150	
5,000.....		Nothing.	
1,500.....		"	
2,500.....		"	
1,000.....		"	
1,500.....		"	

ADDITIONAL ESTIMATES.			
Asked.	Granted.	Asked.	Granted.
\$ 1,500.....	\$1,000	\$ 400.....	\$ 400
1,500.....	1,000	600.....	600
200.....	200	100.....	100
5,000.....	3,000	100.....	100
40,000.....	Nothing	1,000.....	Nothing
350.....	200	300.....	300
500.....	200	360.....	720
250.....	150	3,200.....	3,000
220.....	Nothing	1,500.....	1,000
3,000.....	1,000	\$ 600.....	\$ 600
3,000.....	Nothing	300.....	300
500.....	300	10,000.....	10,000
200.....	200	10,000.....	5,000
2,000.....	Nothing	10,000.....	5,000
400.....	400		

In a word, all the buildings, save the President's residence, had been stricken out, and the amount allowed for this had been reduced forty per cent below the amount asked; while many important items had been severely slashed or cut out all together.

The House bill now went to the Senate, where the Ways and Means Committee decided to abide in all particulars by the House figures.

At this juncture the College felt that it must act at once or abandon the field. After consultation, it was decided to accept the above items as they stood, with the exception of the Domestic Science Hall. The need of this was felt to be imperative, and it was agreed that the Hall must be had if possible, though the residence, already allowed, should be sacrificed. Further, the items already granted must be vigilantly guarded until safe.

The various items, instead of going through in a single bill, showed a tendency to fall apart, thus multiplying the bills and greatly increasing the risk. Most of the items went along together in H. R. No. 216. The \$10,000 "deficiency fund," so-called, found itself in H. R. 165. The two \$5,000 items allowed for still further making good the deficit went into H. R. No. 217, and along with them went certain items relative to coal, water, and care of funds, together with the appropriation of the interest on the permanent college fund. This interest, it may be remarked parenthetically, though belonging to the College by the terms of the original Federal Government grant, and for years collected by the college authorities and covered directly into its own treasury, now passes through the State treasury, and can be had only after an appropriation by the Legislature. The section appropriating this interest was cut off from H. R. 217 through some misadventure, and later became S. 388.

In connection with the appropriation bills, the chief struggle was for the Domestic Science Hall, for the accommodation of the Cooking and Sewing Departments. To make a long story short, this building ultimately found its way into H. R. 216, and the College, in the very last week of the session, came off victorious in this campaign; though, in so doing, it lost the President's residence, and \$4,000 from the amount actually asked for the Hall. As a partial compensation, \$1,000 was allowed for rent of a President's house from the time the original house was destroyed (about two years ago) until the next legislative session.

H. R. 165, S. 388, and H. R. 216 dragged slowly along, and one by one reached the Governors table where they received his signature. Of H. R. 217, we must speak further in another connection.

Passing next to the second group of bills, we note first S. 362. The town of Anthony in Harper County passed, like many other Kansas towns and cities, through its boom period. During that period Anthony borrowed heavily on her bonds, \$19,000 of these being purchased by the College. Since the boom burst the town has been dwindling away until it is now bankrupt. S. 362 was introduced by the Senator from Harper County and asked of the Legislature the privilege of compromising the indebtedness of the town. After

careful investigation the Legislature granted the privilege desired. This means for the College that Anthony will pay to it some portion of the debt; and the State, through the Legislature, will in accordance with the contract between the State and the Federal government relative to the land-grant colleges, pay the balance; thus preserving the endowment fund intact.

Colleges, like other institutions and interests, sometimes find it necessary not only to further helpful legislation, but to oppose measures which threaten their well-being. Whatever may have been the general merits of S. No. 3, it contained one provision of grave import to the College; the provision, namely, whereby the control of the College funds was withdrawn from the College Loan Commissioner and President, who have so long and ably administered them, and vested instead in certain county officers. As a result, this fund, instead of being held together and administered by those having a direct personal as well as official interest in its safety and highest productiveness, would have been scattered over the 100-odd counties of the State. This minute subdivision would have involved a heavy loss of interest on balances too small to invest until increased by subsequent collections of interest on the funds already invested. Each day's delay would have involved loss of revenue to the College, unaccompanied by a corresponding gain to any one. The principal, furthermore, thus scattered about among officials having no personal interest in it, would probably have been considerably endangered. By the vigilance of the Senator from Riley County, this danger was escaped and the College was excepted from the provisions of the bill.

The bill which caused the greatest alarm among the educational institutions of the State was unquestionably S. No. 541, the famous "Fees and Salaries" Bill prepared by Senator Jumper's Fees and Salaries Committee and introduced and pressed by the redoubtable Senator himself. This Bill fixed maximum salaries for all positions in the University, Normal School, and Agricultural College, and for the various State officers from Governor down to janitor, pit boss, or unskilled laborer. It also greatly diminished the powers of the regents of the educational institutions.

The grounds given for the heavy reductions in salaries effected by this bill were the hard times and the necessity of getting down to the gold level. The writer was informed by statesmen at Topeka that since he believed in and had voted for the gold standard, he must now take the consequences and swallow his medicine. The feeling was probably enhanced by the belief that many recipients of fixed salaries welcome the hard times that accompany contraction and "overproduction," realizing that the purchasing power of their salaries is thereby increased; and that, though others lose, they themselves gain. Just why the salaried official should reap an "unearned increment" at the same time that poverty is tightening his bony clutch upon the throats of thousands and "the dead line is moving east," was not clear to all. In such circumstances it availed little to argue that some contracts for salaries may have been made but recently; that some teachers were entitled to earned promotions; that the qualifications of some had grown faster than their salaries; that the Agricultural College derived its "wages-fund" wholly from the Federal Government; and that for our State to reduce professional salaries while other States paid the old prices, would result in driving brains from the State. Such distinctions were too fine; "everything else was coming down except fixed interest charges and taxes, and salaries must come down too."

However, the Jumper bill, though railroaded through the Senate, died in the Ways and Means Committee of the House. Still it was felt the House must make some advances to the Senate. Much more liberal schedules of salaries for the educational institutions were accordingly drawn up and embodied in bills leaving large powers to Boards of Regents; and especially to the Agricultural College Board, since that body administer a Federal rather than a State fund. These bills were then attached as riders to appropriation bills and sent to the Senate. All the appropriation bills for the College were practically at the end of their course save H. R. 217, which was accordingly chosen as the pack-horse for this measure. The College representatives agreed that their best course was to let well enough alone. On the following morning, therefore, their bill with its rider was put through its three readings in the Senate and passed without opposition—another victory for the Senator from Riley. In the afternoon, however, the University and Normal school suffered still another slashing in the Senate, from which even a favorable conference committee could only partially save them.

The final bill to notice is one providing for the government of the College. Since the beginning of the system of biennial sessions of the Legislature the College has been governed by a misfit law adapted to the system of annual sessions. Regents have been appointed for three-year terms. These terms often expire in off years. The Governor then fills the vacancies by appointments, and the new Regents enter upon their duties without senatorial confirmation. After serving perhaps one year, a State election is held. If results are favorable to these Regents, their names are sent in by the Governor to the Senate when that body meets, and the appointments are at last confirmed; if unfavorable, the names may not be sent in, or, if sent in, may be rejected. Hence, many College Regents stand with one foot in and the other out of office, and the personnel of the Board is subject to sudden and almost complete changes.

The University freed itself from this anomalous condition in 1889; the College has more than once endeavored to do so, but failed. It was decided to try again, and a bill embodying practically the exact pro-

visions of the University law was drawn up, agreed upon by all interested, and introduced into both Houses as S. 547 and H. R. 653 respectively. On Tuesday, March 9th, S. 547 passed the Senate unchanged though, considering the lateness of the session, an amendment providing for its publication in a Topeka daily rather than in the official weekly should have been made to ensure the confirmation of the Regents—the end sought by the bill.

Now came an emergency. Late on the night of March 8th a bill was introduced into the House designed to deprive the Chancellor of the University of his power and vote as a Regent. On the 9th, a similar bill was introduced into the Senate and railroaded through its three readings in about the same time required to tell it. Next the question arose, why discriminate between the Chancellor and the Agricultural College President? If one is to be disfranchised, why not both—especially since the Normal School President has no vote? The writer at once informed the President of the new move, and then sought to ascertain its strength. He soon found that friends of the College would be forced to choose between the bill, S. 547, and the vote. In fact, it seemed highly probable that, since the movement had started, the vote would go, whatever became of the bill. On Thursday, March 11th, bill S. 547, came up in the House, was so amended as to eliminate the vote to substitute for the President an additional Regent, and to provide for prompt publication, and so passed. On Friday, the 12th, it returned to the Senate with the amendments.

Final adjournment was expected to take place on the following day. To fight now for the vote would endanger the bill and almost certainly defeat the confirmation of the Regents. Friends of the College differed as to the proper course to pursue in the circumstances; some holding the vote to be more important than the bill and the confirmation of the Regents. The opposite view prevailed. The house amendments were concurred in; and, on Saturday, March 13th, the names of five Regents instead of the four for which the bill had all along provided were sent to the Senate and confirmed.

In the meantime, the bill disfranchising the Chancellor had been sent to the State Printer. Through the carelessness of the Representative intrusted with its management, the bill failed to return in time, and hence failed.

To summarize: All the bills H. R. 216, 165, and 217; S. 388, S. 362, and S. 547 (or its equivalent H. R. 653) which the College wanted passed were passed; those which the College sought to escape, S. 3 and S. 541, were killed. The general appropriations are smaller than could have been desired, but times are hard, and the canvass was not begun until the case was practically settled. Salaries are scaled down somewhat, though less severely than in the other two institutions deriving their salaries-funds from the State. The President has lost his house and vote; but his rent is provided for, and the College has unexpectedly gained a Regent. The anomalous College law has been superseded by a good one. The Domestic Science Hall has at last been won; and with it the long-felt needs of two important and growing departments will soon be provided for. THOS. E. WILL.

COLLEGE ORGANIZATIONS.

Student Editors—R. W. Bishoff, O. E. Noble, Wilhelmina Spohr. **T. M. C. A.**—President, S. J. Adams, '98; Vice-President, G. D. Hulett, '98; Recording Secretary, O. S. Truett, '99; Corresponding Secretary, J. M. Pierce, '98; Treasurer, R. B. Mitchell, '99.

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Alpha Beta Society—President, E. Shellenbaum; Vice-President, Alice Shofe; Recording Secretary, Eva Philbrook; Corresponding Secretary, W. A. McCullough; Treasurer, F. J. Rumold; Critic, J. M. Westgate; Marshal, L. B. Jolley. Meets every Saturday afternoon in south Society hall.

Ionian Society—President, Gertrude Lyman; Vice-President, Mary Norton; Recording Secretary, Dora Shartel; Corresponding Secretary, Maude Barnes; Treasurer, Nannie Williams; Critic, Winifred Houghton; Marshal, Mary Waugh. Meets every Saturday afternoon in north Society hall.

Hamilton Society—President, L. G. Hep north; Vice-President, V. Maelzer; Recording Secretary, Wm. Anderson; Corresponding Secretary, G. G. Menke; Treasurer, B. H. Shultz; Critic, W. L. Hall; Marshal, A. F. Kinsley; Board of Directors, A. C. Smith, S. J. Adams, H. M. Thomas, G. F. Farley, F. O. Woestmyer.

Webster Society—President, R. W. Bishoff; Vice-President, J. E. Trembley; Recording Secretary, Earl Butterfield; Corresponding Secretary, E. B. Patten; Treasurer, M. H. Horn; Critic, F. H. Meyer; Marshal, G. W. Owens; Board of Directors, S. Dolby, F. Zimmerman, G. G. McDowell, L. P. Keeler. Meets every Saturday evening at 7:30 in south Society room.

March 20th.

Our program was opened with an essay by H. P. Hess, who told of the eruption of a crater. The select reading by Mr. A. W. Greenfield was a good production. Mr. Dods gave us a good discussion, proposing some reforms in our State Legislature. The question for debate, "Should the salaries of county officers be reduced?" was ably argued in the affirmative by N. M. Green and Ed. Amos. V. Maelzer and P. Fox could not break through the affirmative's stronghold of argument. Messrs. Pottorf and Rogler, with their horn-violin combination, soothed the Society for a few minutes with two nice waltzes. W. I. Sargent's essay was appreciated. Mr. Sittel's discussion upon the live question, "Should the United States own North America?" was short and to the point. After recess, the ladies' Foriculture class came in from the Webster Society, where presumably they had been enjoying themselves. The fact that the ladies were present had its effect upon Mr. Shultz, who, in giving his declamation, forgot his English and spoke in his native tongue, German; the sentiment was sublime, judging from the expression on the speaker's face. Mr. Farley, editor of the Recorder, presented an excellent paper. It had as its motto: "Blessed are they who expect but little, for they shall not be disappointed." In consequence of the above, we expected little, but were woefully disappointed for the production abounded in wisdom and wit. Our

Critic, Professor Will, complimented and criticized the Society upon its work. The business of the evening was of a nature that called forth great eloquence, intermingled here and there with points of order. The "rag" was typical of the Hamilton Society, although we usually transact more business than we did this particular evening. The Society adjourned to meet in two weeks. G. G. M.

March 13th.

The Ionian girls met in their hall Saturday afternoon at the usual hour. The session opened with singing, followed with prayer by Miss Asbury. After roll call, Miss McClellan was initiated. Maggie Correll gave in her pleasing style a "Book Review" on the beautiful story "Gates Ajar," by Elizabeth Stuart Phelps. A piano solo by Adelaide Wilder was followed by Mary Waugh's dream of the Webster Annual, which was both interesting and amusing. Tacy Stokes then stepped to the piano and played a very pretty solo. The "Oracle" was presented by its editor, Ary Johnson. The articles were all good, and showed the talent of some of the Ionian girls, both as poets and prose writers. A vocal duet by Misses Agnew and Tannehill was highly appreciated by all. The extemporaneous speaking was participated in by several and some very interesting subjects were discussed. The current events given by Lizzie Asbury was preceded by a vocal solo by Miss Perry. The Alpha Beta band favored the Society with a selection. The "Parliamentary Quiz," conducted by our President, showed how hard the girls studied their "Robert's Rules of Order." Before adjournment, the Society was pleased to hear from Messrs. Frowe, Arnold, and Wheeler. M. M.

March 20th.

After resting from their labors of the annual for a week, the Websters again met in Society Hall for a jolly and soul-inspiring session. President Bishoff called the boys to order, and T. W. Allison led in prayer. The question, "Resolved, That slavery has been a greater curse to mankind than intemperance," was debated. The affirmative was presented by F. B. Morlan and J. F. Petseys; the negative, by J. H. Blachly and H. Richards. The Society decided in favor of the affirmative. Mr. Lee McClaren as music committee introduced Mr. H. P. Neilson with his little wind-box. Mr. Neilson responded to an encore. A Hutchinson delivered a well-prepared declamation. Mr. Zimmerman described and illustrated the man who talks a great deal and says nothing. Mr. H. Webster told of the man who talks little, and says nothing when he does talk. Just as the program had started, it was stopped by a gentle rap on the door, and the Marshal ushered in a company of lady visitors. During the evening Miss Marie Haulenbeck favored the Society with a vocal solo. After hearing reports of numerous committees, and taking care of other business, the Society adjourned. E. B. P.

Accessions to the Library.

British Forest Trees and their Sylvicultural Characteristics, Nisbet.

System of Medicine, Vol. 1, General Diseases, Vol. 2, Local Diseases, Reynolds.

Treatise on the Practice of Medicine, Vols. 1 and 2, Wood.

System of Surgery, Vols. 1 and 2, Gross.

Science and Art of Surgery, Erichsen.

Practical Therapeutics, Waring.

Therapeutics and Materia Medica, Stills.

Therapeutics, Materia Medica, and Toxicology; Wood.

Obstetrics: The Science and Art, Meigs.

House Reports, Vol. 1, 2nd Sess., 52nd Cong.

Foreign Commerce and Immigration, 1892.

House Mis. Documents, Vol. 1.

Fish and Fisheries, 1889-1891.

Eleventh Census, 1890, Crime, Pauperism, and Benevolence.

Senate Reports, Vol. 1.

Consular Reports, Vol. 51, 1896.

Tariff Hearings, Vol. 6.

Senate Misc. Documents, Vol. 1.

Smithsonian Report, National Museum, 1894.

Bureau of Education, 1893-4, Vol. 5, Part 2.

Congressional Directory, January 22nd, 1897.

Strikes and Lockouts, Vol. 2, 1894.

Nebraska Bureau of Labor, 1895-6.

Kansas Board of Irrigation Survey, 1895-6.

New York State Entomologist, 1895.

Pianist's Art, Carpe.

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PREPARATION OF A HERBARIUM.

BY PROF. A. S. HITCHCOCK.

ONE of the requirements of students taking first-year botany is the preparation of a herbarium of "not less than fifty" species. As the spring term is about to open, a few notes on the methods of preparation may be of interest to those about to undertake the work.

COLLECTING THE PLANTS.

The student should be provided with a suitable receptacle for holding the plants. A tin collecting case such as is sold at the tin shops is the best. The plants will remain in these for several hours without harm. In addition one should have a trowel or some other instrument for digging. If the plant is not more than two feet high, it should be dug up roots and all. If larger than this, representative parts should be taken. If the leaves near the root are different from those higher up, get both kinds. In case of trees or shrubs, a well-selected twig with flowers and leaves is sufficient. A complete specimen should show root, leaves, flowers, and where possible, the fruit. Sometimes these can all be shown on the same specimen. On such plants as the elm, the flowers must be collected before the leaves come out, and then a second collection made of the leaves. The latter collection, if made at the proper time, can also show the fruit. In this case, the roots need not be collected. In some plants, the stamens and pistils are in different parts of the plant, or even on different plants. Care should then be exercised to obtain both kinds of flowers. When the plant is collected, it is put immediately into the case to prevent wilting. The student should collect only plants that are found growing wild. This includes trees, grasses, and weeds, but only plants with flowers, not the mosses, lichens, algae, and fungi.

PRESSING THE PLANTS.

For this we need driers and inner papers. The former can be cut from thick carpet paper, each piece being 12x18 inches. Several thicknesses of unsized paper, such as common newspaper, can be cut or folded to the same size and after being fastened at the corners, serves the same purpose. One ought not to have less than 50 of these. The inner sheets should be of unsized paper, and cut to 11½x16½ inches.

Before putting the plants in press, remove the dirt from the roots, cut off the withered and broken parts, pare down any thick stems or roots. Bulbs should be cut down on each side, leaving a thin slice in the middle.

To put into press, place a drier upon the table for the bottom of the pile, upon this put one of the inner sheets, and upon this the plant. Spread out leaves and flowers, being careful to keep all parts within the limits of the inner sheet. If any part projects beyond, fold it back over the other part. A slender plant can be folded twice. Now put in the temporary label (see below) and then cover with a second inner sheet. Follow with another drier, inner sheet, plant, and so on until all are in press. If the plants are small several of one kind should be collected and pressed. Upon the pile of plants place a board and then a weight. The pile may instead be tied or strapped up in a lattice-work press. This kind can be easily put out in the sun, but the pressure does not follow up as the plants dry.

The driers rapidly absorb moisture from the plants, and should be changed twice a day for about three days, and then once a day till the plants are dry. Most plants dry in five days if the weather is favorable. Succulent plants, like the spider-lily, take considerably longer. In changing the driers, place the pile upon the table; at one side put a fresh drier to start a new pile. Take off the upper wet drier, transfer the plant, without removing the two inner sheets, to the fresh driers, put on another fresh drier, and thus build up the pile. The inner sheets are to protect the plants during the process of changing. The wet driers should now be spread out in the sun and thoroughly dried. If the plants are allowed to remain too long without changing, they will mould and are then valueless. When dry, the plants are stored away in a convenient place to await mounting. The inner sheets still remain with them as protection.

TEMPORARY LABELS.

As referred to above, every plant should be provided with a temporary label when put into press. This label should have recorded upon it the following data: Locality, the geographical position as nearly as can be located; e.g., "west side of Bluemont, three rods northwest of reservoir." Merely "Manhattan" is not sufficient. Secondly, the habitat; that is, the kind

of soil or the kind of plant community in which the plant is found, as swamp, dry hill, cultivated fields, low woods, prairie, etc. Further, there should be noted the date and any other data which the plant itself will not show, as the height of the plant, if all of it is not obtained, the color of its flowers, odor of foliage, etc. These notes should be taken in the field and attached in some way to the plant. If one waits till the plants are put in press, and attempts to supply these data, he will find that he cannot remember all that should be noted. The name of the collector should invariably be upon the permanent label. When the student did not actually collect the plant himself, he should not put on his own name, but the name of the person who collected the plant. There is no harm in a legitimate exchange of specimens, provided that all the above data are carefully preserved. A legitimate exchange is where one student gives a specimen which he has collected, for one collected by the other person. But where one student obtains a plant from another for the purpose of shirking work, it is not a legitimate exchange.

MOUNTING THE PLANTS.

This can be done all at once towards the end of the term. The herbarium, consisting of covers, about sixty sheets of mounting paper, and a package of blank labels can usually be obtained at the printing office of the College. The specimens are glued to the sheets of mounting paper with fish glue (LePage's Liquid Glue). This can be obtained in Manhattan. The glue is usually too thick to use and must be thinned with water. Only what is to be used in one day should be thinned, as it readily spoils in that condition. Apply the glue to one side of the specimen with a small paint brush. The glue should be just as thick as it can be and yet not tear off the leaves or flowers during the application. The mounting paper is the same size as the inner sheets used in pressing, so that if the plants have been put in press as directed, there will be no alterations necessary when mounted. After the glue has been applied to one side, the plant is put upon the mounting paper in just the place it is intended to be, for no change can be made after the plant touches the paper without leaving a bad daub of glue. The mounted plant is covered with a sheet of paper, the next mounted plant placed on this, and so on till the pile is completed. It is best to keep a weight of a few pounds upon the pile (such as a two-inch plank the size of the paper), taking it off each time a new sheet is put on. The plants should be so arranged on the paper that the pile will not build up in the middle. Distribute all the small plants around in the corners and sides, as there are always enough large plants to keep the center filled up. After the glue has dried, the ends of insecurely fastened stems should be held in place by means of little strips of glued paper or court plaster. Either at the same time the plants are mounted or afterwards, the data on the temporary labels should be transferred to the permanent labels and these fastened neatly to the lower right-hand corner of the sheet.

In all cases only one species of plant should be mounted upon a sheet. If the plants are small, it looks better to have several specimens of a species mounted on one sheet.

It occasionally happens in the spring collections, and frequently in the fall, that fruit is collected separately. This should be enclosed in a neat packet and glued to the sheet. To make a packet, take an oblong piece of paper, fold the lower edge over lengthwise for three-fourths the distance, then fold the upper portion over. The two ends are folded under far enough to keep the packet shut. The packet is glued at one place in the middle of the back. Large fruits, like walnuts and acorns, should not be mounted, but put up in paper sacks, and labelled.

NAMING THE PLANTS.

Each student is asked to determine the scientific name of as many plants in his collection as he can. Those taking botany in the Spring determine the order, genus, and species by means of the "Key to the Spring Flora of Manhattan." Those taking the study in the fall determine the genus only, using the "Key to the Genera of Manhattan plants." Both these pamphlets can be obtained of the writer.

To make a satisfactory herbarium, a student should take a half-day's collecting trip each week up to the first of June. Long trips are not so likely to be successful as well-selected short ones. Go to a different kind of region each time. Watch the waysides and vacant lots near home. In this way many a specimen can be added to the collection with little effort.

WIDE TIRES AS ROAD-MAKERS.

BY SUPT. J. S. C. THOMPSON.

WHILE, as a rule, Kansans have little to complain of in the matter of roads, there are times—and this spring of unusual rainfall is one of them—when the mud in places becomes hub-deep and travel over country roads becomes a laborious task.

The desirability of good roads is admitted generally; and how best to secure them without the great expenditure of money involved in the construction of enduring roadways of macadam or telford, is a problem, the solution of which will practically settle the road question in sections favored, as is ours, with a somewhat sandy soil, easily drained, and where the residents are too few to bear the burden which would be imposed upon them in the building of stone roads.

Perfect drainage and the use of wide tires will make any roads in Kansas passable at any season. Once packed by wide tires and constantly used, a well-drained dirt road will not become muddy except through the action of frost, since no ruts will be formed in either wet or dry seasons to collect the water. The use of the wide tire will, to a great extent, prevent dusty roads by packing and rolling smooth while the soil is damp and plastic.

Some persons think the greatest benefit to be derived from wide tires would be in reduced draft. Experiments show that on a smooth, even surface, as a dry, hard dirt road, there is practically no difference in the draft of the wide and narrow tires. The wide tire is to be valued for its services as a maker and preserver of roadways. The narrow tire, however, will ruin any road, no matter how hard, by traveling again and again in the same track; and in the wet season seems to "get to the bottom of things" in the shortest, most direct route.

Tires four inches in width, set on front and back axles varying eight inches in length, would roll and level sixteen inches of roadway; and though many wagons follow in the same track while the ground was wet, only a wide, shallow rut would be formed, which would quickly be obliterated and offer no obstruction to vehicles.

The Scholarly Farmer.

Not very many years ago the scholarly farmer was held in contempt, and flings at "book farming" were not at all uncommon. In those days, land was cheap, and millions of broad and fertile acres were lying unscarred by the hand of civilization ready for the first comer to possess without money and without price. Then it was not difficult for the most unlettered man, if he possessed health and muscle, to build up a home and attain to comparative wealth with even the commonest education. The newer parts of the country, it may be said, were built up by men who had but few privileges in the way of education, and the work they accomplished is a splendid monument to their enterprise and continuity of purpose; a monument which will stand while the sunshine and showers make flowers to bloom or crops to ripen. To the pioneers we owe a great debt, however unlettered they may have been, for they hewed down the forests and turned up the virgin sod of the wide prairies that we who follow might enjoy the magnificent civilization that is ours.

As the population of the country grew dense, the easily acquired lands were taken up and the opportunity to build up wealth by use of mere muscle passed, in a measure, and we came to the time when it was necessary to use brains as well as muscle in attaining to success, and education became an important factor in the life of the farmer. The fertility of the soil was becoming exhausted by the methods that had been followed, and to grow good crops science must be used. With each passing year the necessity for an education in tilling the soil has become greater, until today the scholarly farmer has many advantages not possessed by his uneducated brother. It is true that the man without an education is still able to make a living from agriculture, and the man who has passed through our common schools may live a successful life, but in almost every instance the man who begins life with nothing but his hands will succeed better if he has a good education than another man similarly situated but lacking in the trained mind that comes from a liberal education.

A man may be a scholarly farmer without ever having finished a course at any university, for he may educate himself after his common school days are past and while pursuing his vocation if he is minded to do so, but if he begins farming with an education it is much easier for him to go forward.

It is the scholarly farmer who is coming to the front these days. We have many conspicuous examples among the best known agriculturists of this country. In Illinois, we have such men as James Coolidge, whose success has made him so well known that he has been called to a lucrative and responsible situation on one of the largest stock farms in another State. A. G. Judd, of Dixon, is another example of the success that comes to the educated farmer who is able to take advantage of circumstances in the midst of hard times to make money from his farm. James W. Wilson, of Iowa, a scholarly farmer, has been called to his high position as Secretary of Agri-

culture because he is, and always has been, a farmer and one who has used his education in making his profession pay. We have in Wisconsin George McKerrow and in Minnesota O. C. Gregg, both men of attainments in their chosen business, and in Ohio there is Chamberlain, Bonham, and Terry, all scholarly men who till the soil and who make a success of doing so.

These are but a few examples of the multitude that might be cited to prove that the scholarly farmer has the advantage over the uneducated one. In the future, competition must become sharper and skill of still higher value in agriculture as in every other profession.

The fathers of the coming generation of farmers should make every effort to start their boys well by giving them an education that will place them, when they assume life's responsibilities, among the ranks of scholarly farmers.—*Farmer's Voice*.

Planting Ornamental Shrubbery.

Prof. L. H. Bailey has just published some "Suggestions for the Planting of Shrubbery" (Bulletin No. 121, for September, 1896, Cornell University agricultural experiment station, Ithaca, N. Y.). Some of his remarks may be of great help to those of our friends who have small yards to lay out and plant. He says: "The great trouble with home grounds is not so much that there is too little planting of trees, and shrubs, but that this planting is meaningless. Every yard should be a picture, that is the area should be set off from every other area, and it should have such a character that the observer catches its entire effect and purpose without stopping to analyze its parts. The yard should be one thing, one area, with every feature contributing its part to one strong and homogeneous effect."

Prof. Bailey makes this plain by means of the two pictures here reproduced. Fig. 1 represents the common, faulty type of planting front yards. "The bushes and trees are scattered promiscuously over the area. Such a yard has no purpose, no central idea. It shows plainly that the planter has no constructive conception, no grasp of any design, and no appreciation of the fundamental elements of the beauty of landscape. Its only merit is that trees and shrubs have been planted; and this, to most minds, comprises the essence and sum of the ornamentation of the grounds. Every tree and bush is an individual, alone, unattended, disconnected from its environments, and therefore meaningless. Such a yard is only a nursery."

"The other plan is a picture. The eye catches its meaning at once. The central idea is the residence, with a warm and open green sward in front of it. The same trees and bushes which were scattered haphazard over Fig. 1 are massed into a framework to give effectiveness to the picture of home and comfort. This style of planting makes a landscape, even though the area be no larger than a parlor. The other style is simply a collection of curious plants. The one has an instant and abiding pictorial effect, which is restful and satisfying; the observer exclaims, 'What a beautiful home this is!' The other piques one's curiosity, obscures the residence, divides and distracts the attention. The observer exclaims, 'What excellent lilac-bushes these are!' If the reader catches the full meaning of these contrasts, he has acquired the first and most important conception in landscape gardening."

A bush or flower-bed which is no part of any general purpose or design—that is, which does not contribute to the making of a picture—might never have been planted. For myself, I had rather have a bare and open pasture than such a yard as shown in Fig. 1, even though it contained the choicest plants of every land. The pasture would at least be plain and restful and unpretentious. It would be nature-like and sweet. But the yard would be full of "effort and fidget." For very small yards, I believe itself is all sufficient if well kept. Whenever I pass the more unpretentious residences in villages or the suburbs of cities, where there is nothing but a bit of clean lawn, closely shaven, and kept fresh and bright by the free use of the water from the hydrant, I feel that all is done under such circumstances, especially if some good vine, as clematis, Boston ivy (*Ampelopsis veitchii*), etc., is made to clamber about the house, with some hanging baskets or potted plants on the veranda. The area is small, and the framework of shrubbery may be largely dispensed with.—*Farm and Fireside*.

The Face in Illness.

The face is a good index to the state of one's physical being, and from it symptoms of disease can be detected almost before the patient is aware that anything serious is the matter with him. For instance, incomplete closure of the eyelids, rendering the whites of the eyes visible during sleep, is a symptom in all acute and chronic diseases of a severe type; it is also to be observed when rest is unsound by pain, wherever seated.

Twitching of the eyelids, associated with the oscillation of the eyeballs or squinting, herald the visit of convulsions.

Widening of the orifices of the nose, with movements of the nostrils to and fro, point to embarrassed breathing from disease of the lungs or their pleural investment.

Contraction of the brows indicates pain in the head; sharpness of the nostrils, pain in the chest; and a drawn upper lip, pain in the abdomen.

To make a general rule, it may be stated that the upper third of the face is altered in expression in affections of the brain; the middle third, in the diseases of the organs contained in the abdominal cavity.

Keep Up the Fight.

Just now the times are such as to call for the economical management of farm affairs. They do not, however, call for an indiscriminate cutting down of expense. Farming cannot be carried on "free of cost." The stopping of all expense would very soon lead to the loss of all income. If there is no sowing, there can be no reaping. If there is no opposition to untoward influences, the very foundations of success will be undermined. Many farmers recognize the truth of this principle as far as its immediate application is concerned who do not observe, or do not appreciate, its equally potent influence upon what will occur in the future. A curious and instructive instance of the want of foresight has recently been reported in England. Many years ago sparrows became very troublesome, and the farmers in a large district offered a certain price per head for their destruction. After a time the profits of farming declined, and at length, as a matter of so-called economy, payment of the bounty was suspended. A recent report from that district states that the farmers are "now almost eaten up by the sparrows." This result should have been foreseen, but the people who were suffering from a great depression in price, as well as from a partial failure of their crops, were too much taken up with their then present ills to fully consider what would occur if they failed to protect themselves against an evil that was sure to become much more formidable in the future if efforts for its suppression were in the least relaxed.

What has been in the past will, if conditions are the same, occur in time to come. The man who is not able or not willing to incur the cost of sowing will not be involved in any great expense for harvesting. If war against enemies is relaxed, those enemies will multiply with amazing rapidity. This is true whether the enemies are weeds, insects, or diseases. If it is to be efficient, the war must be kept up continually. There is no economy in relaxing vigilance even for the briefest period during which the warfare can be carried on. On the contrary, such a course will be really extravagant. What has been accomplished by the work of years in the way of checking the evils that have been named may all be lost by neglect during a few weeks of the period in which these enemies are in their most vigorous condition.

The man who is not willing to do something for crops to be grown in the future as well as those of the present should be in some other business than farming. If he is not disposed to work persistently, he can have no right to hope for success. He should at once decide either to keep up the fight or to leave the field.—*Practical Farmer*.

Temperance and Cooking.

Food is force. As a rule, few people know how to eat. They fail to realize that the quality of all mental action is determined by the quality of food. Lack of energy and buoyancy of spirit is often as fatal to good work as is illness itself, and there is no question but that hygienic cooking produces directly the one or the other. There is such a thing as "a cooking menu,"—the scientific solving of the problem. The universal temperance reform will begin when good cooking becomes the rule rather than the exception of every household. The extra elaborations of pastry should give way to excellence in the preparation of simple foods, of steak perfectly broiled, good bread, a realization of the value of fruit, and of tea and coffee, made in a way that it retains their flavor and stimulus. With hygienic food, reasonably early hours of sleep, and an intimate acquaintance with fresh air, a clearness and vigor of mind can be constantly held that will act on affairs with successful energy.—*Household Economics*.

Kitchen Prescriptions.

Miss Boland tells of a Harvard professor who was credited with saying that no man could be a gentleman without a knowledge of chemistry; and forthwith all the students took to chemistry, for all wanted to be gentlemen. She continues:—

"Would that somebody would authoritatively declare that no woman could be a lady without a knowledge of chemistry of the household. What a glorious prospect would there be opened for the future health of the nation."

The knowledge of the physiology of digestion should be as much a part of the cook's and housekeeper's education as the art of the preparation of foods. Ignorance is either wilful or a great misfortune. Wilful ignorance in the kitchen, as in any prescription shop, should be considered as a crime; a certain amount of knowledge concerning the hows and whys should be compulsory, as well as that of ways and means.—*Table Talk*.

An unknown writer in an exchange says history proves that prosperity has always followed by hard times of great depression, and history will repeat itself. No matter what comes, let us stick to the farm. We may work for a few years for nothing, but what matters it as long as we retain in our possession the old farmhouse? We shall not always remain at the bottom of the wheel. In time matters will adjust themselves. Then let us have a firmer determination than ever to know the details of our business, and make the coming year conspicuous for having made progress in reducing the cost of production, the curtailment of unnecessary expenses, and, above all, let us never forget that ours is one of the noblest callings given to men, and the little spot of ground we occupy is part of God's green earth, and let us manfully till and care for it, that those who shall succeed us may point with pride to the work of our hands.

Calendar.

1896-97.
Fall Term—September 10th to December 19th.
Winter Term—January 5th to March 27th.
Spring Term—March 30th to June 10th.
June 10th, Commencement.
1897-98.
Fall Term—September 9th to December 18th.

To School Officers.

The College Loan Commissioner has funds now to invest in school district bonds at par. The law requires that no bonds be sold at par or less without being first offered to the State School Fund Commissioner and the State Agricultural College. Address C. R. Noe, Loan Commissioner, Leon, Kan.

GENERAL LOCAL NOTES.

Easter lilies are in bloom at the greenhouses.

Home duties call a considerable number of students away at the end of the term.

The Board of Regents will meet Tuesday afternoon, April 6th, at 3:30 o'clock.

A. E. Nelson, First-year, concludes to leave College and begin the study of medicine.

A. G. Wilson, Third-year, drops out for the Spring Term to take a place on the Russell Reformer, published by F. J. Smith, '95.

Maggie Correll, Fourth-year, W. R. Correll, Third-year, and Charles Correll, First-year, mourn the death of a six-year-old brother.

The bare spot just north of the Carpenter Shop, hitherto given over to crab-grass, fox-tail, and sand-burs, has been planted to shrubs.

Foreman Baxter shows visitors to the greenhouses a fine lot of pansy plants in all stages of development from "just up" to the flowering plants.

Mr. Cederberg, who has been employed as door-keeper at Topeka during session of Legislature, stopped to visit friends at College one day last week.

Judge W. C. Webb, of Topeka, asks information concerning all laws affecting the College, for the new compilation he is employed by the Legislature to make.

Mrs. C. K. Carpenter is visiting with her daughter, Mrs. Mayo. She spent several months of the winter with her son, a student at Cornell University, Ithaca, New York.

Dr. Gladden, pastor of the First Congregational Church at Columbus, O., who is to deliver our Commencement address, writes that he will speak on "Present Day Problems."

Prof. Georgeson writes for the last *Kansas Farmer* an article on the history and uses of the Jerusalem artichoke (*Helianthus tuberosus*), with experiments in growing it at this Station.

The Domestic Department cut off the mid-day lunches the first of last week, to the sorrow of their patrons. Lunches will again be served, however, for a portion, at least, of the Spring Term.

President Taylor, of the State Normal School, spent the forenoon of Friday at the College. After addressing the students in Chapel, he was "personally conducted" through buildings and grounds to his evident enjoyment. He addressed the Riley County Teachers' Association at Leonardville on Saturday.

GRADUATES AND FORMER STUDENTS.

C. A. Murphy, '87, writes from Kingman, where he is Superintendent of Schools.

M. V. Hester, '94, has the office of Surveyor of Kiowa County added to his duties.

May Harman, '93, writes from Valley Falls an interesting letter which testifies to her continued interest in Alma Mater.

R. J. Barnett, '95, is a familiar figure in the Horticultural Department, after a year's absence. He taught in Washington county last year.

C. R. Pearson, '94, Superintendent of Schools of Sheridan Co., shows his interest in his Alma Mater by writing for catalogues. His postoffice address is Hoxie.

E. O. Sisson, '86, the head of the new Bradley Polytechnic School at Peoria, writes to a member of the Faculty his appreciation of the advantages given him here in industrial training.

A new star in the world of cartoonists, Mr. R. C. Hunter, [Fourth-year in 1892-3] has been proving himself an artist in the line of drawing, and last Saturday's *Globe-Democrat* represented some of his work. The cartoon showed the situation of Crete and the powers represented by an immense foot hanging over the little Grecian warrior in a threatening attitude. The *Globe-Democrat* has called on Mr. Hunter for more of his cartoons, which will probably continue to appear in that journal.—*Wagoner* (I. T.) *Daily Sayings*.

One of the eighty-one graduates of the University Medical College, at Kansas City, Mo., this week, is Dr. A. H. Hepler. Many of our citizens will hardly recognize in the above announcement an active, accommodating, promising young man, known familiarly as Abe Hepler, who clerked in the Alliance Exchange in its palmy days, several years ago. Dr. Hepler has made an enviable record in college, and enters his profession with the best preparation, perhaps, of any member of his class. A young man of his bearing, energy, and character can find a field of labor anywhere, but we understand it is his ambition to secure employment in one of the Kansas insane

asylums, where he may continue the study of his specialty—nervous affections and diseases of the mind. We are proud of Dr. Hepler as a Manhattan boy.—*Manhattan Republic*. Mr. Hepler was a Second-year student in 1893-4.

A dispatch from Fort Leavenworth says of a member of '86, who is stationed at Fort Clark, Texas: "A prize of \$100 and a gold medal has been awarded to Lieutenant J. G. Harbord, Fifth Cavalry, by the United States Infantry Society, for the best written paper on 'The Necessity of a Well Organized and Trained Infantry at the Outbreak of War, and the Best Means to be Adopted by the United States for Obtaining such a Force.' The judges were Senator J. R. Hawley, General Horace Porter, and John C. Ropes, the eminent military historian. A large number of papers were submitted."

Musical Echoes.

The number of pupils enrolled this term is 345, being assigned as follows:—

Instrumental Department—Piano and organ, 52; violin, viola, and violoncello, 68; mandolin, guitar, and zither, 29; cornets and other band instruments, 50.

Vocal Department—Class on Wednesday, 44; class on Thursday, 49; class on Friday, 63.

Class Organizations—College Cadet Band, 23; College Band "B," 23; College Orchestra, 24.

The number of musical selections rendered at the public lectures, rhetorical, and exhibitions during the term was 32, of which 17 were instrumental and 15 vocal.

Notes from the Kitchen.

Class work in Household Economy closed the past week with written recitations three days and the regular examination Friday.

The class in cooking will take up dairying next term as industrial work. The dairy being so small and the class so large, only a limited number can do dairy work at a time. The others will go on with the regular cooking.

Demonstration lectures were given in candy making Wednesday. The kinds made were white taffy, Everton taffy, or butter scotch, and French foudant.

About twenty pounds of candy was made this week, the basis of most of it being foudant. Parts of it were colored, some pink, others green, and still others brown—nut, date, fig, citron, raisin, and chocolate candy being some of the different kinds made.

A tea to the Board of Regents and members of the Faculty and their wives will be given next week, after which regular lunches will be served.

Fifteen pounds of candy has been sold to students during the past week.

Much work at plans for the new Domestic Science building is being done that a definite plan of the building may be given the Board of Regents.

IVY F. HARNER.

The Kansas Academy of Language and Literature.

The fourteenth annual meeting of the Kansas Academy of Language and Literature will be held in Manhattan, beginning on the evening of Thursday, April 22nd, and closing Saturday morning, April 24th. No pains will be spared to make it a pleasant and helpful meeting to all members and friends.

Programs will be issued in a few days. President Carruth's address will be given Thursday evening. Friday evening Mr. T. E. Dewey will entertain and instruct the academy with "Poetry in Song." In the three other sessions, there will be papers covering different fields of the Academy's work, discussions, readings, and a symposium in Kansas literature, led by Eugene Ware.

The Academy invites to its membership all who are interested in language, literature, or art, whether they are actually engaged in these or not; and it welcomes the attendance of all friends, whether members or not. All literary clubs in the State are entitled to representatives.

All who attend the Academy will receive entertainment in the homes of Manhattan. As soon as you have decided to attend, please send the name and date to O. E. Olin, Manhattan, Kansas.

It will probably require an attendance of one hundred to secure reduced rates. Prompt reports from all expecting to attend will enable the Committee to arrange this matter.

Prof. Olin is Chairman of the Executive Committee.

Kansas Musical Jubilee.

The fifth annual meeting of the Kansas Musical Jubilee will be held in Hutchinson, May 18, 19, 20, and 21, 1897. The Jubilees heretofore have been very successful, and we have every reason to believe that it will be more so this year. Two thousand dollars will be given away in prizes.

Prof. Frederick W. Root, of Chicago, will again act as judge of the vocal contests, and also give a drill in voice culture and chorus singing each day, as he did last year. In addition to this, he will remain in the city the week following the Jubilee and conduct a class in voice culture, for which a nominal sum will be charged. Prof. Allen H. Spencer, of the American Conservatory of Music, Chicago, has been secured to act as adjudicator of the instrumental department. He will give two solo recitals, one in the afternoon of May 18th, and one in the afternoon of May 20th, and in addition will also assist in the evening concerts.

A one-fare rate has been secured on all railroads and low rate of entertainment in the city. Anyone

wishing further particulars concerning the Jubilee, or wishing to reserve his seat in Auditorium, can do so by addressing the Secretary, B. S. Hoagland, Hutchinson, Kan.

COLLEGE ORGANIZATIONS.

March 20th.

When the Critic expressed a favorable opinion of the Ionian program for the last session, each member felt that the praise was well deserved. One particularly pleasant feature of the day was the part which our visitors took in the program. After the usual opening exercises, Glenn McHugh recited two pieces, and to say they were well rendered, is small praise. Myrtle Cole, one of our promising new members, gave a parody on the "Psalm of Life." A bright piano solo was the next number by Minnie Howell. A story, "Our Hatley," read by Maude Barnes, was followed by a cornet solo. Alice Ross is our cornetist, and adds one more talent to the general store. Bertha Spohr's oration on the "Mission of the Artist," was well written and well delivered. Miss Bowen favored the Society with a piano solo, and it was such a treat that the girls would not be contented until she played again. The Oracle, editor Emma Finley, was good, after which Tacy Stokes recited a sweet little poem, "Seein' Things At Night." An extemporaneous parliamentary quiz followed; then the Society adjourned to meet in two weeks.

Accessions to the Library.

Messages and Documents, Department of Agriculture, 1896.

Michigan Bureau of Labor, Factory Inspection, 1897.

Vines and Vine Culture, Barron.

American Journal of Science, Vols. 1, 2, New Series.

Cassier's Magazine, Vol. 10.

Auk, Vol. 13.

Chautauquan, Vol. 23.

Arena, Vol. 16.

Popular Science Monthly, Vol. 49.

Entomological News, Vol. 7.

Timber Pines of the Southern United States, Mohr.

Journal of the Military Service Institution, Vol. 17.

Music Life, and How to Succeed in It, Tapper.

Chats with Music Students, Tapper.

Official Gazette of the United States Patent Office, Vols. 74 and 75.

Industrialist, Vol. 21.

Rebellion Records, Vol. 42, Parts 2 and 3.

Indian Currency Committee, Parts 1, 2, and 3.

Smithsonian Report, 1894.

Special Consular Reports, American Lumber, Vol. 2.

Acceptance of the Statues of John Stark and Daniel Webster.

Appropriations for New Offices, etc.

Annual Literary Index, 1896.

Grounds and Buildings.

The College grounds and buildings, occupying an elevation at the western limits of the city of Manhattan, and facing towards the city, are beautiful in location. The grounds include an irregular plat in the midst of a fine farm, with orchard, vineyard, and sample gardens attached, the whole being surrounded by a durable stone walls. The grounds are tastefully laid out and extensively planted, according to the design of a professional landscape gardener, while well-graveled drives and good walks lead to the various buildings. All of these are of the famed Manhattan limestone, of simple but neat styles of architecture, and admirably suited to their use. All recreation rooms are excellently lighted and ventilated, and are all heated by steam or hot water. A complete system of sewerage has been provided.

College, 152x250 feet in extreme dimensions, arranged in three distinct structures, with connecting corridors. This building contains, in its two stories and basement, offices, reception room, cloak rooms, studies, chapel, library, reading room, kitchen laboratory and dairy, sewing room, society rooms, printing office, and twelve class rooms.

Chemical Laboratory, one story, 26x90 and 46x75 feet of floor space, in form of a cross. It contains eight rooms, occupied by the Department of Chemistry and Mineralogy.

Mechanics' Hall, 39x103 feet, two stories, and 40x80 feet, one story, occupied by wood and iron shops music rooms, iron foundry, lumber rooms, etc., in addition.

Horticultural Hall, 32x80 feet, one story and cellar, having cabinet room, class room, and storage, with greenhouse attached.

Horticultural and Entomological Laboratory, with propagating houses attached.

Museum Building, 46x96 feet, and two stories high. This building, which has served many purposes, is now fitted for an armory, drill room, and veterinary laboratory below, and for class room and laboratory for Department of Botany and Museum of Natural History above.

Science Hall, containing the library, with ample reading rooms; class rooms and laboratories, and cabinet room for zoology, entomology, and botany; and suitable rooms for the various College societies.

Appropriation is also made for a central steam plant, to furnish heat and power for all the buildings. This plant is to cost \$14,000, and will be completed in the fall of 1893.

The farm barn is a double but connected stone structure, 50x75 feet and 48x96 feet, with an addition of sheds and experimental pens 40x50 feet. A basement, having stables for 75 head of cattle, silos, engine room, and granaries, underlies the entire structure.

The horticultural barn is a stone building, containing store-room, granary, and stables for several horses.

The foundries, lumber house, implement house, piggery, and various out-buildings are of wood.

Two stone dwellings, occupied by the President and the Professor of Agriculture.

Objects.

This College now accomplishes the objects of its endowment in several ways.

First, It gives a substantial education to men and women. Such general information and discipline of mind and character as help to make intelligent and useful citizens are offered in all its departments, while the students are kept in sympathy with the callings of the people.

Second, It teaches the sciences applied to the various industries of farm, shop, and home. Chemistry, botany, entomology, zoology, and mechanics are made prominent means of education to quicken observation and accurate judgment. Careful study of minerals, plants, and animals themselves illustrates and fixes the daily lessons. At the same time lessons in agriculture, horticulture, engineering, and household economy show the application of science; and all are enforced by actual experiment.

Third, It trains in the elements of the arts themselves, and imparts such skill as to make the hands ready instruments of thoughtful brains. The drill of the shops, gardens, farm, and household departments is made a part of a general education to usefulness, and insures a means of living to all who make good use of it. At the same time it preserves habits of industry and manual exertion, and cultivates a taste for rural and domestic pursuits.

Fourth, It strives to increase our experimental knowledge of agriculture and horticulture. The provision for extensive and accurate researches, made by establishing the Experiment Station as a distinct department of the College, offers assurance of more definite results than can be obtained by ordinary methods. The Professors of Agriculture, Horticulture, Chemistry, Botany, and Veterinary Science, together with the President of the College, form the Experiment Station Council, by authority of which experiments are undertaken and carried on in the several departments, under the special supervision of the professors. These touch "the physiology of plants and animals; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under a varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and waters; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable."

The bulletins of the Station, issued at least as often as once in three months, are sent, according to law, free of postage, to all newspapers in the State, and "to such individuals actually engaged in farming as may request the same, and as far as the means of the Station will permit." Correspondence with reference to bulletins and experiments is welcomed, and may be addressed to the several members of the Council.

Fifth, It seeks to extend the influence of knowledge in practical affairs beyond the College itself. For this purpose, farmers' institutes have been organized in more than 40 counties of the State, in which from two to four members of the Faculty share with the people in lectures, essays, and discussions upon topics of most interest to farmers and their families. These institutes, held for twelve years past, have brought the College into direct sympathy with the people and their work, so as to make possible a general dissemination of the truths presented. The members of the Faculty desire correspondence as to farmers' institutes or any questions of practical interest in agriculture or related sciences. The *INDUSTRIALIST*, published weekly, and edited by Faculty and students, gives a wide circulation to matters of similar interest in the College.

To serve a similar end, a course of thirty lectures is given at the College during two weeks in February of each year, to which farmers from all parts of the State are invited. Members of the Faculty are also prominently connected with State associations for the promotion of agriculture, horticulture, the natural sciences, and education in general.

Expenses.

Tuition is free, and no general fee for incidental or contingent expenses is charged.

Lessons in instrumental music—two a week—are from \$10 to \$14 a term, according to its length; one a week, \$6 to \$8.40. In classes of two or more, the cost is less. One-half is to be paid to the instructor in charge with the first lesson; the other half at the middle of the term.

The cost of text-books at the book stores is, for the first year, about \$2.75 a term; for the second year, \$3 a term; for the third year, \$6.50 a term; and for the fourth year, \$2.75 a term. Second-hand books may be obtained at lower prices.

The expenses for apparatus and tools to each student during the course are as follows: Drawing, \$4.05; microscope for botany and entomology, \$1.50; case, pins, etc., for entomology, \$2.25; herbarium, \$1.50. The total expense for these articles during the four years is less than \$10.

Board and washing are not furnished by the College. Board, with furnished rooms, can be procured in private families at from \$2.50 to \$3.50 per week, or table board in student clubs from \$1.50 to \$2.25 per week. Some students board themselves at even less cost; and rooms for the purpose can be obtained at a rent of from \$1 to \$3.50 a month. Washing costs from 50c. to \$1 a dozen pieces.

Ordinary expenditures, aside from clothing and traveling expenses, range from \$100 to \$200 a year.

A Good Education Pays.

1. In dollars and cents. All testimony of statistics agrees in showing that educated laborers of all ranks have better work and better wages than the uneducated.
2. In influence and position. Careful estimates make it certain that the chances of promotion to places of trust and power among men are almost two hundred times as great to an educated man as to the uneducated man.
3. In usefulness. The bulk of good work in the world—discovery, invention, government, philanthropy, and religion—is brought about by those who learn to think by study.
4. In enjoyment. Our pleasures grow out of what we are ourselves more than from surroundings. A well-trained man sees, hears, and handles a great deal more of the world than an untrained one. All things do him more good, not so much because he owns them as because he understands them. He always has good things to think about.

Labor and Earnings.

Every encouragement is given to habits of daily manual labor during the College course. Only one hour's daily practice in the industrial departments is required; but students are encouraged to make use of other opportunities for adding to their ability and means.

All labor at the College is under the direction of the superintendents of the department, and offers opportunities for increasing skill and efficiency. In regular weekly statements, the students are required to observe business forms and principles, showing from their daily account when and where the work was performed.

The shops and offices are opened afternoons and Saturdays for the accommodation of skilled students in work for their own advantage. Everywhere the student who works wins respect; and it is a matter of pride to earn one's way as far as possible.

The labor of the students in the industrial departments is principally a part of their education, and is not paid for unless the student is employed upon work for the profit of the College. Students are so employed upon the farm, in the gardens or the shops, and about the buildings. The labor is paid for at rates varying with the services rendered, from 8 to 10 cents an hour. The superintendents strive to adjust their work to the necessities of students and give them the preference in all tasks suitable for their employment. So far as practicable, the work of the shops and offices is turned to account for their benefit; and the increasing extent of the grounds and sample gardens brings more of such labor. The monthly pay roll for the past year ranges from \$250 to \$400.

Many students obtain work in the city or upon neighboring farms, and so pay part of their expenses. In these ways a few students are able to earn their way through College. The amount so earned will vary according to the tact and zeal of the student. The majority must expect to provide by earnings outside of term time, or from other sources, for the larger part of their expenses.

The long summer vacation of three months offers opportunity for farm or other remunerative labor; and no one need despair of gaining an education if he has the ability to use his chances well.

General Duties and Privileges.

General good conduct, such as becomes men and women anywhere, is expected of all. Every student is encouraged in the formation of sound character, by both precept and example, and expected, "upon honor," to maintain a good repute. Failure to do so is met with prompt dismissal. No other rules of personal conduct are announced.

Classes are in session every week day except Saturday, and no student may be absent without excuse. Unexcused absences are taken into account in calculating grades. Students enrolled in any term cannot honorably leave the College before the close of the term, unless excused beforehand by the Faculty. A full and permanent record of attendance and scholarship shows to each student his standing in the College.

Chapel exercises occupy 15 minutes before the meeting of classes each morning, and unnecessary absence from them is noted. On Sunday no services are held in the chapel, but students are urged to attend the different churches of the city.

Every Friday, at 1:30 P. M., the whole body of students gather for a lecture from some member of the Faculty, or for the rhetorical exercises of the Third- and Fourth-year Classes. Once a week all the classes meet, in their class rooms, for exercises in elocution and correct expression.

There are four prosperous literary societies which meet weekly in rooms set apart for their use. The *Alpha Beta*, open to both sexes, and the *Ionian*, for ladies, meet Friday afternoon. The *Webster* and the *Hamilton* admit to membership gentlemen only, and meet on Saturday evening.

The Scientific Club, composed of members of the Faculty and students, meets in the Chemical Laboratory on the second and fourth Friday evenings of each month.

Branches of the College Y. M. C. A. and Y. W. C. A. hold weekly meetings at the College, and a union meeting on the first Friday evening of each month.

Once in each term the College Hall is opened for a social gathering of Faculty and students, in which music, literary exercises, and friendly greetings find place.

Public lectures by prominent men of the State are provided from time to time, as opportunity offers. All are free.

Library.

The College library consists of over 13,000 bound volumes and about 4,000 pamphlets, and is valued at \$26,000. It has been selected mainly with a view to supplementing the class room instruction in the various departments. All the books are indexed in a card catalogue, so that the resources of the library upon any subject may be readily learned. All students have free access to the book shelves, and may draw the books for home use, under simple and most liberal regulations.

The College subscribes for the leading literary, scientific, and agricultural journals; while the principal daily and weekly papers of Kansas and many from other States are received in exchange for the College publications. All these are kept on file for the use of students and Faculty.

The College has been designated as the depository of United States public documents for the Fifth Congressional District of Kansas. About 1,000 volumes have already been received on this account.

The library is open daily except on legal holidays. During the College terms, the library hours are from 8 A. M. to 4 P. M., and during vacation from 9 A. M. to 12 M. The Librarian or the assistant is in constant attendance, at these hours, to assist those who use the books.

Industrial Training.

Closely adjusted to the course of study is industrial training in several of the arts, to which each student is required to devote at least one hour a day. Among the lines of training each student may select, with the approval of the Faculty, except in terms when special industrials are required. Young men may have farming, gardening, and fruit growing, woodwork and ironwork, or printing. Young women may take cooking, sewing, printing, floriculture, or music.

All young men must have their industrials for one term in the carpenter shop before completing the first year; and during the spring term of the second and the fall term of the third year, upon the farm, garden, and orchards. Young women take their industrial for one term of the first year in sewing, and for the winter and spring terms of the second year in the kitchen laboratory and dairy.

Terms of Admission.

Applicants for admission at the beginning of the College year must be at least 14 years of age, and able to pass a satisfactory examination in reading, spelling, writing, arithmetic, geography, English grammar, and United States history. Those applying later in the year must show sufficient advancement to enter the classes already in progress. Every effort should be made to begin with the first day of a term, in order to advance with the class from the first.

The following diplomas and certificates will be received in lieu of entrance examinations:—

1st. Diplomas received on the completion of a county course of study which has been approved by the Faculty, when properly signed by the county superintendent.

2nd. Certificates of passing the grammar grade in any city school with a course of study approved by the Faculty, when properly signed by the city superintendent.

3rd. Kansas teachers' certificates issued by the county board of examiners, showing that the above-named studies have been passed with a grade of at least 70 per cent.

The Faculty have approved the course of study adopted by the following counties and cities; others may be submitted for approval at any time:—

COUNTIES.			
Allen,	Elk,	Linn,	Reno,
Anderson,	Ellis,	Marshall,	Rice,
Barber,	Ford,	Marion,	Riley,
Brown,	Geary,	McPherson,	Rooks,
Bourbon,	Greenwood,	Miami,	Rush,
Butler,	Harper,	Mitchell,	Russell,
Chase,	Harvey,	Montgomery,	Saline,
Cherokee,	Jackson,	Nemaha,	Shawnee,
Clay,	Jefferson,	Neosho,	Sumner,
Cloud,	Jewell,	Osage,	Wabaunsee,
Cowley,	Johnson,	Osborne,	Washington,
Dickinson,	Kingman,	Ottawa,	Wilson,
Doniphan,	Labette,	Pottawatomie,	Woodson,
Douglass,	Leavenworth,	Republic,	Wyandotte.

CITIES.			
Abilene,	Concordia,	Kanapolis,	Oswego,
Anthony,	El Dorado,	Kansas City,	Ottawa,
Arkansas City,	Emporia,	Kingman,	Paola,
Atchison,	Emporia,	Larned,	Parsons,
Augusta,	Fort Scott,	Lawrence,	Pomona,
Beloit,	Frederonia,	Leavenworth,	Russell,
Burlington,	Gaylord,	Lyons,	Salina,
Caldwell,	Girard,	Manhattan,	Seneca,
Chanute,	Great Bend,	Mankato,	Solomon City,
Cherryvale,	Hiawatha,	McPherson,	Topeka,
Cherokee,	Holton,	Minneapolis,	Washington,
Clay Center,	Horton,	Newton,	Wellington,
Clifton,	Hutchinson,	Olathe,	Winfield,
Coffeyville,	Independence,	Osage City,	Wichita.
Columbus,	Junction City,	Osborne,	

Applicants over 18 years of age, who, for lack of advantages, are unable to pass full examination, may be received on special conditions.

Applicants for advanced standing in the course must pass examination in all the previous studies of the class to be entered; but, if they have pursued such studies in other institutions of similar rank, they may receive credit for their standing in those institutions, upon presenting a certificate from the proper officer, showing that their course has been equivalent to that given here.

College Business.

Loans upon school-district bonds are to be obtained from the Loan Commissioner.

Bills against the College should be presented monthly, and, when audited, are paid at the office of the Treasurer in Manhattan.

All payments of principal and interest on account of bonds or land contracts must be made to the State Treasurer, at Topeka.

The *INDUSTRIALIST* may be addressed through Pres. Geo. T. Fairchild, Managing Editor. Subscriptions are received by Supt. J. S. C. Thompson.

Donations for the Library or Museums should be sent to the Librarian, or to Prof. Popenoe, Chairman of Committee on Museums.

Questions, scientific or practical, concerning the different departments of study and work, may be addressed to the several Professors and Superintendents.

General information concerning the College and its work—studies, examinations, grades, boarding-places, etc.—may be obtained at the office of the President, or by addressing the Secretary.

The Experiment Station should be addressed through the Secretary.

If you want several shrubs on a small lawn, and the space is too small to allow you to set them as far apart as they ought to be, in order to give them the benefit of space individually, group them; that is, plant them in a clump. The idea is to make the three, or four, or five shrubs which you plant in a group produce a unity of effect which will give much the same impression that one well-developed specimen would. By selecting varieties in which there is contrast of color as to foliage, as well as flowers, satisfactory results may be secured. In the irregularity which produces charming effects there is always a method and a plan.—Eben E. Rexford, in *Ladies Home Journal*.

MANHATTAN ADVERTISEMENTS.

R. E. LOFINCK deals in new and Second-hand Text-books and School Supplies of all kinds, gold pens, etc.

VARNEY'S BOOK-STORE.—Popular Head-quarters for College Text-Books and Supplies. Second-Hand Books offered as good as new. Call when down town. Always glad to see you.

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ELLIOT & GARRETSON, Clothiers and Furnishers, invite students and all other College people to call and examine their large stock of new goods. All the desirable things in men's wear. Latest styles in every department.

R. E. LOFINCK keeps a big stock of Watches, Clocks, Jewels and Gold Spectacles, also Musical Instruments.

THE SPOT CASH STORE is Headquarters for Dry Goods, Notions, Boots and Shoes, Hats and Caps, Clothing, and Ladies' Wraps. Lowest prices in the city. A complete grocery store in connection.

D. C. P. BLACHLY, Dentist. Gold filling a specialty. Telephone No. 139.

KNOTSMAN CLOTHING COMPANY offers a great variety of clothing and furnishing goods at prices to suit the times. Call without fail before buying.

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USES AND ABUSES OF SHADE TREES.

BY PROF. S. C. MASON.

IF the degrees of civilization prevailing in a country, or in a community, were to be estimated by the appreciation shown for shade and ornamental trees, there can be no doubt that some of the oriental nations, to whom we are sending missionaries, would rise up in judgment against our boasted American civilization.

That we have many who love trees, and love to have them around their dwellings, cannot be questioned. There are a few who know trees by their names, who delight in the artistic grace and beauty of this and in the rugged strength of that species, and who can find rest and refreshing of mind and body in a stroll through the woods to some favorite dale or to a tree whose individual character and beauty they have come to love. These are among the signs which point to better things. But we still have many to whom a tree has little more value than it had to their pioneer forefathers, who, from settling in unbroken forest, came to regard all trees as fit subjects for the axe.

Manhattan has many tree lovers, and quite as many tree abusers. We can see many a pretty home with its row of elms along the street, and other evidences that the owner delights in their shade and beauty. But we can scarcely drive two blocks without seeing a beautiful tree to which some one has hitched a horse long enough to allow him to gnaw the bark off half-way around the trunk.

If the horse owner had seen a five-dollar bill lying on the table where he called, it is not probable that he would have taken it, or even that he would have felt tempted to do so; yet he drives away, leaving behind him ten dollars' worth of damage—damage which cannot be figured in dollars—to a tree which it has taken time and care to plant and years to grow, and his standing in the church is as assured as before.

Within a year I have seen a place having a row of fine young elms along the curb, where earth was banked in preparatory to laying a sidewalk. On four or five of these trees, worth at least twenty-five dollars each in actual selling value to the property; could be seen the marks of the wheel scraper where it had torn off a patch of bark the size of one's hand. Now it is to be presumed that the driver of that scraper-team received pay for his day's work in honest silver dollars instead of sustaining a damage suit, as would have been his just desert.

Every spring witnesses another class of tree abuse. Rows of trees that have become tall and shapely with the characteristic top of the species suddenly become offensive to the owner. Perhaps they afford too much shade, or, more likely, the peripatetic tree-pruner has called in quest of a job and has pointed out how much it would improve the appearance of the place to head in those trees and give them such a nice cabbage-head top. And so a man whose knowledge of woodcraft and tree-pruning is hardly up to the standard required for sawing good straight cord-wood is given the authority to reduce that row of stately elms to the condition of unsightly pollards. "Two dollars and a half, please."

Now, there are cases where the trees are throwing too much shade, and one of the common tree abuses is that of planting too thickly in the first place. Few of our street trees will give the best form when set nearer than twenty, thirty, or even forty feet apart. If planted more closely when young, as they doubtless should be, they should be watched and every other one removed before they begin to crowd and spoil their tops. This takes more nerve than most property owners possess, but is a vastly better remedy than pollarding.

Planting trees in situations where they could not possibly grow to their natural size without interference is a too common evil.

By far the worst tree abuse in our community is that perpetrated by the city fathers, in connection with the telephone franchise. Now, we believe the telephone exchange is a good thing, and are proud of it. It has proven a necessity; even the babies of Manhattan have to have it. But to authorize a line of poles along every street just where shade trees have been authorized, and grown under the protection of the law, is the worst tree abuse of the ages. Allowing the linemen to saw out at their discretion, the tops of all trees reaching above their limit, no matter how the top may be disfigured, and to keep these trees forever below this line, is an outrage that the property owners of Manhattan ought to combine

to resist. The trees of our city add many thousands of dollars to the real value of city property. They deserve to be protected and their planting encouraged in every way possible.

A village improvement association could find noble work to do in this direction. The work must be a patient one and a work of education. It cannot all be done in a day, or a summer, but let every tree lover do his part and that promptly.

BIRDS OF EARLY SPRING.

BY PROF. D. E. LANTZ.

THE observer of nature looks for the first signs of spring in the arrival of the birds. In New England and the Middle States, the blue bird and robin are generally regarded as heralds of spring. In Kansas, these two species are so commonly present throughout the whole winter that their presence in February or early March is no sign that any permanent breaking up of cold weather is near at hand. Their louder and more constant singing at that time is only an indication of the near approach of the breeding season, which seems with most of our hardy species to be entirely independent of the weather or of the general advancement of the season. For instance, our owls may be relied upon to lay their eggs about a certain date. It may be cold or warm, may rain or snow, but that does not seem to affect the bird's habits. The great horned owl will lay before February 29th, and the barred owl before March 12th, no matter if the worst blizzard of the season may be raging when the bird begins to lay. The screech owl, the short-eared owl, and the long-eared owl will all have laid their full sets of eggs by April 5th.

Of our familiar summer birds, I would select to replace the blue bird and robin of the east as the true harbingers of spring the purple martin and the crow blackbird. The first arrival of these does not necessarily mean that there will not be any more cold weather that season. The first arrival of blue bird or robin in Massachusetts does not mean that. It is looked upon as a promise merely, an indication that spring is coming. So here the coming of the martin may be but temporary. I have known one to arrive on a warm March morning and to disappear before noon. Not another individual was seen for a week or ten days. Snow and cold weather prevailed in the interval.

But when the martin and grackle (blackbird) assemble in numbers, it may be assumed that the cold weather is practically over for that season. The arrival of the bulk of these species will occur within a few days. The time of this spring opening is variable as to date. It may occur at any time from early March to the middle of April. The average date will be about March 25th. This year the first purple martin was seen March 17th; the first crow blackbird, on March 13th. Neither was seen in numbers before March 25th; the bulk arrived March 27th to 30th. In the interval between March 17th and March 25th, a snowstorm occurred, but the cold was not severe enough to drive away the first comers of these birds, which were seen almost daily.

These birds are, of course, not our earliest arrivals from the south. The wild ducks always come during the last week of February or the first week in March. The canvas back is the earliest of these, but they are not seen every season. The pintail, mallard, and widgeon are usually here in numbers by March 3rd, but the date is dependent upon the weather, especially upon its conditions as to moisture. Brewer's blackbird and the red wing are usually here by March 1st. The former is the first blackbird to arrive, if we may except the rusty blackbird, which I have noted only in moist, foggy weather in midwinter. The killdeer may usually be heard as early as March 1st; this season the first record is March 7th. Bewick's wren was first seen March 10th, which is fully two weeks earlier than usual.

Industrial Training.

Closely adjusted to the course of study is industrial training in several of the arts, to which each student is required to devote at least one hour a day. Among the lines of training each student may select, with the approval of the Faculty, except in terms when special industrials are required. Young men may have farming, gardening, and fruit growing, woodwork and ironwork, or printing. Young women may take cooking, sewing, printing, floriculture, or music.

All young men must have their industrials for one term in the carpenter shop before completing the first year; and during the spring term of the second and the fall term of the third year, upon the farm, garden, and orchards. Young women take their industrial for one term of the first year in sewing, and for the winter and spring terms of the second year in the kitchen laboratory and dairy.

Farmers' Sons and Daughters.

Farmers, why not take more interest in the children? They were sent us to be cared for, and if we do not do our duty by them, to the best of our ability, I think we shall be held accountable. Who does not like to see a well-behaved child? No amount of teaching will have the effect on a child that a good example will. How the little girl will watch to see what mother does, and what mother says. And you will hear and see all your careless words and acts reproduced, at a time perhaps when you will feel ashamed, and wonder where that child learned such ways. It is a great mistake to teach children to do so and so, when folks are around, or when they go away from home. Teach them from the beginning to always be polite to you, to each other and to everyone in the family, or out of it. Fathers and mothers, strive to do in everything as you would like to see your boys and girls do. Try to keep the confidence and respect of your children, so they will think that whatever father and mother may say and do must be right and proper for them to do also. Sympathize with, but never ridicule them. Give them plenty of books and papers that will be instructive and entertaining; reading that will have a refining and an ennobling influence. Also give them reading from which they may gain practical knowledge of the ways of the world, but never allow low or sensational reading matter in your house. Remember, if weeds once get started in your garden, it will be a hard matter to uproot them. Sow the ground so full of good seeds that there will be no room for weeds. Educate your children as well as your means will allow, always keeping up this home education and training, remembering that it will have the most bearing on the life of the boy or girl. We often hear farmers' sons and daughters spoken of as "greenies" by the village and city people. Those who make such remarks, show themselves green; that is sure. Let us bring up the children in such a cultivated manner that that saying will be done away with. Our brightest men and women were brought up on farms.

Commence teaching the girls to do all kinds of housework just as soon as they are large enough, as you do not know how soon they may have to do without you. If they know how to be useful, it will give them a more independent feeling if they should be left without a mother. This puts me in mind of a little incident that happened not long ago. The wife of a farmer died, leaving a large family of children, the eldest a girl of seventeen. Her grief for her mother was two fold by the thought of her ignorance in household matters. "What shall I do," she said, "I do not know how to cook or sew, and there is scarcely anything that I can do independently. If I had been taught to work, what a help I might now be to father, for with the help of the younger children we could get along all right."

Alas, there are too many such cases! The girls may have to earn their own living sometime for aught we know, and if they have a thorough knowledge of housework, and can execute all kinds of needle work and have a good education, coupled with refined manners, they will be sure to find desirable positions of some kind. Do not try to make farmers of the boys who are constantly longing to be doctors or ministers or lawyers, or have a decided talent for fine arts, and every bit of farm work is irksome to them. Such boys will not make good farmers, for their hearts will not be in their work, and to make a success of any kind of business, one must be thoroughly interested in it. Boys ought to learn to do all kinds of farm work, if they are not going to follow it, because it comes handy to know how, when they come home for recreation, for farming is the healthiest work in the world. There is no class of people so generally healthy as the farmers, and we might add, so free, honest, and noble. So boys and girls, you may feel proud when pointed out as farmers' sons and daughters.—*Practical Farmer.*

Two Methods of Farming.

Charles Prosch, Seattle, Wash., in *Great Northern Bulletin*: One of the causes of failure in agricultural pursuits is the haste to get rich. This it is which leads many to seek larger farms than they can successfully cultivate. It is a fatal mistake. Instead of confining themselves to areas which they can profitably manage, they undertake the cultivation of tracts of land which demand the expenditure of labor and money beyond their means. Needless debts and galling mortgages are often the fruits of this foolish ambition.

Two men came to Puget Sound some years ago, from a manufactory in a distant city to become farmers. Each had a wife. They settled on adjoining claims in a fertile valley. One believed in "making haste slowly;" the other was in a hurry to get rich. The former commenced by clearing and planting half an acre, on which he raised more vegetables than he and his wife could consume before another planting season. In the second and each succeeding year he added to the area under cultivation, until he had five or six acres fenced and planted in fruits and vegetables. He hired a neighbor to do his plowing, which he supplemented by a vigorous use of the spade in his own hands. Cows, poultry, and pigs, from a very small beginning, multiplied rapidly around him. He found a ready sale at good prices for his produce of every kind. By combining frugality with industry, he soon found himself possessed not only of surplus products, but also of surplus cash. In short, it was not long before he had money to lend, and within ten years ceased to depend upon his labor for a livelihood.

Very different was the course pursued by his friend

and neighbor. He did not believe in going slow. After exhausting the limited means with which he started, he incurred a heavy indebtedness for costly farming implements, horses, wagons, etc., in a determination to bring the larger part of his 160 acres under cultivation the first season. This, as he soon found, was a fatal error. His crops, when marketed, realized much less than his expenses, interest on debt included. At the end of the second year his pecuniary condition was worse. Having commenced wrong, his embarrassments increased as the years rolled by. In five years he got to the end of his rope; then the sheriff stepped in and sold him out.

These two cases, both of which came under the observation of the writer, can be multiplied many times; they are but a sample of many like cases in this and other States. All along the shores on Puget Sound, on island and mainland, are settlers who are living in comfort and accumulating money by cultivating two or three acres of land. It is only when they desire to grow large quantities of fruit—apples, pears, plums, cherries, etc.—that they require or cultivate eight or ten acres.

The Business of Home-Making.

Study and drill are required for every profession and for every responsible position in life except the one of home-making.

No person applies for the situation of typewriter teacher, or pharmacist without preparation, and if she did would not be accepted.

Yet persons of recognized intelligence in most things will apply for the situation of home-making without a knowledge of even its rudiments.

"Not qualified" is the secret of many discontented, embittered lives, and keeps to the front the great question, "Is marriage a failure?" New homes are daily formed; the young and hopeful and loving are assuming untried responsibilities. They enter upon them in the full faith in their ability, with their mutual love, to turn aside the calamities that have wrecked so many homes and lives. But how sad, to many, is the reality stripped of its glamour and its gloss.

The woman in whom "the heart of her husband doth safely trust" is surely to be prized far above rubies. Upon her wise management, her care and economy, largely depend their mutual success and happiness. She is the center of the home, its light and life, the angel spirit that infuses home love into the hearts of her family.

Upon her devolves largely the training and educating of the little ones, the moulding of their characters and shaping of their future destinies.

The household has been the foundation of the world since its infancy. It is a training institution. From it spring the elements of good or evil which make the world rejoice or tremble. Around the hearthstone is developed the fullness and force of personal character, which is to be the power of the future.

That a higher standard of home life has been reached with the passing years, is indicated in wiser governments, especially in our land of homes. But woe and degradation that daily confront us on every hand are evidences that there are still undiscovered possibilities in this world's primary.

The world has at last conceded to woman equality with man in education—social, national, religious. Then there have been opened to her many avenues for bread-winning. She may take her place with him, and hold it, too, in the sciences, arts, and classics. But with the higher education of woman, of which so much is said and written, one truth is keeping pace—the necessity for more perfect homes. In them lie our hopes for more perfect manhood and womanhood.

Home-making is a science, also an art. External destinies no less than earthly—the soul's salvation or ruin—are influenced, shall we not say determined, by the character of the home. Influences far beyond the limits of the human mind to estimate in their number and extent emanate therefrom.

The world today asks of woman, yea, demands of her, that to her higher education be added a culture and training for a higher standard of home life; that she do not belittle or hold in light esteem the privileges of home-making, but thoughtfully, conscientiously, enter upon the discharge of its duties. It asks of her to give more earnest heed to the things that make for the comfort, peace and happiness of the home; to make it of first importance, to surround it with all that is brightest and purest.

Eternity alone will reveal and and measure her power in raising to high places and keeping in paths of rectitude the souls struggling through a world of temptation and sin.—*The Voice.*

The Compost Heap.

Every farm should have its compost heap. Farm economy demands it; farm sanitation almost compels it. The heap should be an uncovered, water-tight basin, so arranged that the coarse material can easily be wheeled into it and the liquid manure drained into it. Its size should be proportioned to the number of animals kept on the farm, with an allowance for other matter accumulating from time to time. The size of the compost heap may be computed from the following data: An animal weighing 1,000 pounds will produce from six to ten tons of manure per year and a cubic foot of such manure, when well compacted, will weigh from sixty-five to seventy pounds. Manure reservoirs need not be covered, because there is not usually more rainfall than the compost needs to properly ferment it. In fact, there are many times when water should be turned on the manure, and this is especially true of horse manure. The reservoir

should be made with sloping ends, so that a wagon can be backed into it for loading and eventually driven straight through it. Those who value appearances may convert the barnyard into a place of beauty by first gathering the refuse of the buildings and yard into the compost heap, and then surrounding its walls with trees, grass, and flowers, fencing the whole as a flower garden.—*Homestead.*

Draught of Agricultural Implements.

Bulletins No. 4 and No. 7 of the Utah Experiment Station contain interesting results from tests of farm wagons, plows, mowing machines, and harrows, as measured by a self-recording dynamometer.

The conclusions, as stated in these bulletins are as follows:—

That colters add to draught of plows by some 15 per cent. That trucks or wheels under the end of the plow beam decrease draught by about 14 per cent, add uniformity to the furrow, and lessen the work of the plowman.

When the traces are not in line with the draught of the plow, the draught is increased.

Lengthening the hitch slightly decreased the draught 36 per cent over a new share. A dull share drew harder than a sharp one, but not so hard as a badly sharpened share. Draught increases with the depth and width per square inch of soil.

Walking plows gave slightly less draught than sulky plows with rider. Sulky plows drew easier down hill, but much harder up hill than walking plows. A share straight on its land side and bottom took land well and gave a slight increase of draught. A loss of draught was found on a sulky plow when its adjustment to take land was made from the pole.

A load over the hind wheels drew 10 per cent easier than over the front wheels.

Lowering the reach, or coupling pole, on the hind wheels decreased draught; wagons draw easier when the traction has an upward incline, and harder when horses are hitched to the end of the pole.

Loose burrs increased draught 4.5 per cent.

An old mowing machine repaired drew easier than a new one.

The draught was 8.7 per cent. greater for a well-sharpened sickle, than for one more nicely sharpened.

A pitman box set tight, gave less draught than one set quite loosely.

When cutter bar is not near right line with pitman rod, the draught is increased.

When guards are out of line, the draught is increased.

When cutter bar inclines upward draught is decreased.

When the sections of the sickle do not strike in the center of the guards, the draught is increased.

The draught was decreased ten pounds by the driver walking.

A loss of force was observed when the wheel at the end of the cutter bar failed to work well.

The Beauty of Method.

This is a methodical, not an accidental world, says a familiar writer. If a house wife turns out a good cake, it is the result of a sound receipt, carefully applied. She cannot mix the assigned ingredients and fire them for the appropriate time without producing the result. It is not she who has made the cake; it is nature. She brings related things together, sets causes at work, these causes bring about the result. She is not a creator, but an intermediary; she does not expect random causes to produce specific effect—random ingredients would only produce random cakes. These effects must be the result of the previous cause. To expect results without antecedents, is to expect cakes without ingredients.

Happiness is governed by law. Men and women forget this, and expect faith, hope, and joy to drop in to their souls like snow or rain. They do no so, but if they did it would nevertheless be true that they had their origin in previous activities. Rain and snow do drop from the air, but not without a long previous history. They are the mature effects of former causes. Just so with joy and peace and rest. They, too, have each a previous history. Storms and winds and calms are not accidents, but are brought about by antecedent circumstances. Rest and peace are but calms in man's inward nature and arise through causes as definite and as inevitable. Look into the faces of your friends and neighbors. Where strongest tempests of trial have raged, there hovers greatest blessing of peace. We suffer and grow strong. Fierce storms purify the atmosphere; years of trial crown us with peace; nor that alone, but strength and joy. It is the result of a cause, this peace which passeth understanding.

The Unsociability of Cities.

"Talking about the unsociability of large cities, an instance came within my own knowledge, that is, I think, without a parallel," says a writer in a Cincinnati paper. "I have a friend living in New York who roomed for five years in the same house with a young man, and never made his acquaintance or even learned his name. He went on a hunt one summer in the Adirondacks, and there met the young man who roomed in the same house with him. A conversation sprang up between them, and they then learned that they were of the same name. 'Have you any brothers?' asked my friend. 'I don't know. There were two of us, and my parents died when I was quite young. I was raised by an uncle in the West and lost track of my brother.' 'Well, I was raised by an uncle in New York, and I believe you and I are brothers.' A little further investigation proved it to be a fact."

Shall we plan to have a fresh bouquet of flowers in center of the table during each meal next summer?—*American Gardening.*

Calendar.

1896-97.
Fall Term—September 10th to December 19th.
Winter Term—January 5th to March 27th.
Spring Term—March 30th to June 10th.
June 10th, Commencement.
1897-98.
Fall Term—September 9th to December 18th.

To School Officers.

The College Loan Commissioner has funds now to invest in school district bonds at par. The law requires that no bonds be sold at par or less without being first offered to the State School Fund Commissioner and the State Agricultural College. Address C. R. Noe, Loan Commissioner, Leon, Kan.

GENERAL LOCAL NOTES.

Prof. Mason has a class in landscape gardening for the spring term.

Secretary Graham spent Tuesday last in Topeka, called there by business.

Prof. Brown was called to Leavenworth last week Monday and returned Tuesday.

Isabel Symns, Third-year, entertained on Monday evening in honor of her brother.

Ex-Regent Hessin is appointed general attorney in Kansas for the American Book Company.

Mrs. Kedzie gave an address on Saturday evening at Lasita, where several graduates dwell.

Josephine and Adelaide Wilder, Third-Years, entertained a few College friends on Monday evening.

Capt. Cavanaugh enjoyed a visit from his daughter last week. She is a student at Washburn College.

Miss Dutton, special student during the winter term, drops out to reopen the Kindergarten School in Manhattan.

N. Will took advantage of the spring vacation at the University to visit his brother, Prof. Will, a few days last week.

Sophonra Channell, Second-year, who has been sick for several weeks, left a few days ago for her home in Alta Vista.

Dr. Mayo last week visited a ranch on the site of old Fort Larned in the interest of experiments of the Veterinary Department.

Assistant Chemist Breese has notice that his father has been appointed Commandant of the Soldiers' Home at Dodge City.

Regent Noe writes of a serious accident to Mrs. Noe in which the tendons of an ankle are so loosened as to threaten a crippling for life.

Prof. White lectured last Monday in the course arranged for the benefit of the Wabaunsee school by the Principal, C. C. Smith, '94.

The College Ball Club will play at Fort Riley on Saturday next. A return game will probably be played here on Saturday, April 17th.

W. A. Lesley, First-year, was tossed by a bull at the barn on Friday, and bruised so badly that he was kept from classes the following day.

Most of the Third-year boys armed themselves last week with substantial canes, bearing the legend "98," neatly engraved thereon. They are for Sunday wear.

Geo. Doll, Fourth-year, completed the course with the ending of the winter term, last week. He is undecided as to his movements for the next two months, and may take up special study for the term.

The Kansas Academy of Language and Literature will be tendered a banquet during their session in Manhattan, April 22nd to 24th, which will probably be prepared and served by the Domestic Department of the College.

The following old students have returned for the spring term: Ella Barnard, Pearl Cunningham, Arminta DeArmond, W. D. Duffy, A. M. Ferguson, Mary Finley, Gertrude Hardy, Stella Hougham, L. V. Putnam, G. B. Rogers, Mary Sweany, L. A. Fitz.

The Kansas University Comedy Club presented the comedy, "The Rivals," at Wareham's Opera House on Friday evening, for the benefit of the Dorcas and Kindergarten Societies. The cast, while admitting of improvement in several of the minor parts, was well taken on the whole. Miss Georgia H. Brown as *Mrs. Malaprop*, Miss Eva Brown as *Lydia Languish*, Mr. Will Anderson as *Sir Anthony Absolute*, Mr. Harrold Smith as *Acres*, and Mr. Clarence Spellman as *Sir Lucien O'Twigger*, are deserving of special mention. The company spent two hours at the College on Saturday morning.

The Cadet Battalion is organized for the spring term as follows: Adjutant, A. D. Whipple. Company A—Captain, Mark Wheeler; First Lieutenant, E. Butterfield; Second Lieutenant, T. W. Allison. Company B—Captain, H. M. Thomas; First Lieutenant, Wm. Anderson; Second Lieutenant, E. V. Hoffman. Company C—Captain, R. W. Bishoff; First Lieutenant, Fred Zimmerman; Second Lieutenant, M. W. Sanderson. Company D—Captain, Schuyler Nichols; First Lieutenant, E. B. Patten; Second Lieutenant, A. E. Blair. Non-commissioned staff—Quartermaster, W. A. McCullough; Sergeant Major, E. P. McDowell; Ordnance Sergeant, G. R. Crawford.

Since it is generally agreed that the Society rooms are not wholly satisfactory in point of location, lighting, ventilation, size, and finish, and since the State cannot be expected to provide better rooms for many years to come, if at all, would it not be a good time, this spring term, for the four societies to agitate the project of a Society Building to be erected

by subscription of society members—past, present, and future? Of such there are thousands, and it is probable that nearly all of them would give something, and give it freely, to such a praiseworthy cause. Such a gathering together of mites would result in a tidy sum, which might be safely invested and added to from time to time, until in a few years this building fund, as it would come to be called, would reach the required dimensions, when a Society Hall might be built with Society funds, for Society uses.

Bulletin No. 64—Experiments With Corn.

The Farm Department has just issued the above named bulletin, which concludes with the following summary of results:—

"Time of Planting Corn.—We have obtained the best results from corn planted early in May or the last of April. Successive weekly plantings from the first to the last of May show a successive decrease in yield corresponding with the lateness of planting.

"Amount of Cultivation.—In an experiment to ascertain the amount of cultivation most profitable for corn crops, results seem to indicate that four cultivations would, under the conditions of our experiments, be more profitable than either a greater or less number. The amount of cultivation that a crop requires must, of course, depend on several things, as the nature of the soil, the nature of the season, whether the soil is foul with weeds or reasonably free from weeds, as well as on the thoroughness of the work.

"Methods of Culture.—In a comparison between listing and surface planting, the average of four years' trials is in favor of listing. As between deep and shallow culture, deep plowing while the corn is small, before the shovels can tear the roots, and shallow plowing in the later cultivations, have given better results than either deep culture throughout the season or shallow culture throughout the season.

"Subsoiling Compared with Surface Plowing.—A somewhat thorough test of this question fails to show an increase in yield of corn on subsoiled ground. The average of all trials is slightly in favor of surface plowing. This, of course, can apply only to soils similar to that on the Station farm; but the experiments do show that there are soils on which subsoiling does not benefit the corn crop. The soil on the Station farm is classed as a clay loam.

"Butt, Middle, and Tip Kernels for Seed.—The average of five years' trials show that there is no material difference in yield between kernels selected from the butt, middle, and tip of the ear. The results do not indicate that the tip and butt kernels ought to be rejected and only perfect-shaped kernels used for seed—theories to the contrary notwithstanding.

"Fall Plowing Compared with Spring Plowing for Corn.—This experiment has been tried but one season. The results from this one time are slightly in favor of fall plowing.

"Early, Medium, and Late Varieties.—In a comparison between three varieties, ripening at different periods, the early corn yielded much less both of corn and fodder than either the medium or late maturing varieties the past season. An average for the two years of 1895 and 1896 likewise shows that the late variety yielded the best. Both seasons were favorable to the corn crop. It is doubtless true that in a dry year an early variety may sometimes yield a light crop while a late variety will be a total failure.

"Test of Varieties.—In an average of three or more years, the following varieties have over 50 bushels, ranking in the order named: Early Thompson, Hartman's Early White, Pride of Kansas, Boone County White, Early Yellow Rose, King Philip, and Champion Yellow Dent."

Third-year Oratory



Fifth Division

April 3rd, 1897

Music—College Orchestra.

CORA EWALT—

The Oratorical Contest.

E. L. SMITH—

The Price of Success.

EMMA DOLL—

Value of Elocution and Oratory.

A. A. PAIGE—

The Cost of Our Privileges.

G. D. HULETT—

The Decline of the Drug.

INEZ MANCHESTER—

Good and Bad Effects of Ridicule.

GRADUATES AND FORMER STUDENTS.

G. W. Finley, '96, is at home in Manhattan after a year of teaching in the northern part of the county.

Emma Adams-Ferguson, student in 1892-3, is the mother of a son, born March 24th, at Waterloo, Iowa.

M. G. Spaulding, '96, after a term of teaching at Lapland, takes a place as clerk in Dold's packing house, Wichita.

E. P. Smith, '95 and Mabel Cotton-Smith, '96, rejoice in the advent of a daughter on March 29th. They live at Pavilion, Kansas.

C. C. Smith, '94, having finished his school at Wabaunsee, leaves today to take the spring-term work at DePauw University, Greencastle, Indiana.

M. A. Limbocker, '95, visited the College last week. He completes the law course at the University in June, and plans to practice his profession at some point in the South.

A. F. Niemoller, '93, spent last Thursday with College acquaintances. He taught a successful school during the winter near Enterprise. His place of residence is Stett, Kansas, where he will be engaged during the summer.

The following graduates presented papers at the recent meeting of the Riley County Educational Association at Leonardville, March 26th and 27th: "Nature Study in District Schools," Lora Waters, '88; "Training for Good Citizenship," T. E. Lyon, '93; "Do Defective Hearing and Defective Vision Influence the Moral and Mental Development of Children?" Jennie R. Smith, '94.

H. G. Gilstrap, '91, and Effie Gilstrap-Frazier, '92, suffer the loss of their printing office in the recent tornado at Chandler, Oklahoma, in which several people were killed and all the buildings but five destroyed, fire adding its horrors to the havoc wrought by the wind. The *News* will no doubt rise, Phoenix-like, from the ashes, and present its readers with a detailed account of the calamity which has befallen the town.

COLLEGE ORGANIZATIONS.

April 3rd.

At the usual hour, President Shellenbaum called the Alpha Betas to order. The band gave a good selection, which brought forth a hearty encore. F. J. Rummold offered prayer. Miss Ada McCall and G. E. Newton were elected and initiated as members. The story of "Hamlet" was told by Grace Dille, and it is seldom we hear such an excellent production. Mrs. Hutto's piano solo was enjoyed by all. The next number was a declamation by Jennie Needham, in which she told "How Ruben Played," and kept the Society laughing for a few minutes. An excellent number of the Gleaner was presented by Cassie Dille, after which followed recess. After recess, a male quartet, composed of Messrs. Clothier, Hulett, Crowl, and Crowl, gave some good music. The usual time for extemporaneous speaking was taken up by a parliamentary quiz, conducted by Charles Shull, which showed that the members could recite, even if the lesson had not been assigned. It being the regular time for election of officers, the Society proceeded to this number, during which the members exercised their various oratorical abilities, each in behalf of his favorite candidate. The final ballots showed the following results: President, Grace Dille; Vice-president, Guy Hulett; Recording Secretary, H. A. Martin; Corresponding Secretary, Inez Manchester; Treasurer, Nora Reed; Critic, R. W. Clothier; Marshal, Laura Pritchard. After election, the Society adjourned. W. A. M.

From the Industrial Art Department.

The Industrial Art Department is preparing to use next year the meter, instead of the foot and inch, in all descriptive geometry work.

Miss Miriam Swingle is doing some very handsome brush-shading in post-graduate work. She will have a dozen or more large plates in her annual exhibit.

C. W. Pape has been busily engaged in zoölogical sketches this year. Last fall term he drew skeletons and feet—bird feet; this winter term he has made forty plates of original sketches of bird heads and bills—horizontal and vertical projections of nearly two hundred specimens.

Con M. Buck is assisting Prof. Walters in the draughting room and at the drawing board. He teaches from four to five classes every day, and seems to be perfectly unconcerned when the Second-years call him professor.

Professor Walters is busy with his numerous classes. The department has ten full classes organized, of which he teaches five, Mr. Buck four, and Miss Phoebe Haines one. Afternoons he works on the plans for the new Domestic Science Hall. The drawings will be submitted to the Board of Regents this week. X.

Notice to Students.

The Faculty have adopted the following rules in regard to industrials:—

In all industrials at least four-fifths of the enrolled time must be given to secure a grade; and the grade given for actual time worked shall be reduced, for absences not made up, one point for each hour of excused absence, and two points for each hour of unexcused absence.

A failure in any industrial must be made up in addition to regular industrials, at the discretion of the Superintendent; and such failure shall be counted like failures in studies with reference to the student's course.

Weather Report for March, 1897.

BY C. M. BRESE, OBSERVER.

A normal month with exception of rain fall, which was considerably above the average. The wet weather has somewhat retarded farm work, especially the sowing of oats and making of gardens, but has been perfection for the wheat plant which could hardly be in better condition. Tame grasses are beginning to come on, oats are coming up, peach and plum buds swelling, and all crop conditions exceptionally good.

Temperature.—The mean temperature was 41.02°, which is .6° above normal. There have been fifteen warmer and twenty-three cooler Marches on our record. The highest temperature was 80°, on the 18th; the lowest, 0°, on the 14th—a monthly range of 80°. The greatest daily range was 44°, on the 14th; the least, 5°, on the 2nd. The mean daily range was 23.45°. The warmest day was the 18th, the mean temperature being 59.25°. The coldest day was the 13th, the mean temperature being 17.5°. The mean temperature at 7 A.M. was 33.9°; at 2 P.M., 51.13°; at 9 P.M., 39.52°. The mean of the maximum thermometer was 53.9°; of the minimum, 30.45°; the mean of these two being 42.18°.

Barometer.—The mean pressure for the month was 28.744 inches, which is .04 inch below normal. The maximum was 29.126 inches, at 9 P.M. on the 15th; the minimum, 28.118 inches, at 7 A.M. on the 19th; monthly range, 1.008 inches. The mean at 7 A.M. was 28.760 inches; at 2 P.M., 28.721 inches; at 9 P.M., 28.752 inches.

Cloudiness.—The per cent of cloudiness was 44.09. This is 1.09 per cent above normal. The per cent at 7 A.M. was 61.29; at 2 P.M., 38.71; at 9 P.M., 32.26. Five days were entirely cloudy; one was five-sixths cloudy; six were two-thirds cloudy; nine were one-third cloudy; five were one-sixth cloudy; and five were clear.

Precipitation.—The total precipitation was 2.19 inches. This is .87 inch above normal. There were ten storms, two of which were snow storms, 5.25 inches of snow falling. There were thunderstorms on the 18th, 19th, 28th, and 30th, and slight hail on the 19th and 30th. The total rainfall for January, February, and March, 1897, is 1.51 inches above normal for those three months.

Wind.—The wind was from the north, 23 times; east, 17 times; southeast, 14 times; south, 11 times; southwest, 11 times; northeast, 9 times; northwest, 7 times; west, 1 time. The total run of wind was 9723 miles, which is 34 miles above the average. This gives a mean daily velocity of 313.64 miles, and a mean hourly velocity of 13.07 miles. The highest daily velocity was 612 miles, on the 21st; the lowest, 105 miles, on the 3rd. The highest hourly velocity was 38 miles, at several different hours during forenoon of 21st.

The following tables give comparisons with preceding Marches.

March	Number of Days.	Rain in inches.	Per cent of Cloudiness.	Prevailing Wind.	Mean Temperature.	Maximum Temperature.	Minimum Temperature.	Mean Barometer.	Maximum Barometer.	Minimum Barometer.
1858	5	2.02	...	...	47.12	82	10	...	...	...
1859	6	2.88	56	SW	45.95	74	29	...	...	...
1860	0	.00	24	SWNW	50.89	81	24	...	...	...
1861	0	.00	53	NW	41.20	79	20	...	...	...
1862	0	.00	26	N	37.27	85	8	...	...	...
1863	0	.00	26	N	45.77	86	20	...	...	...
1864	5	2.12	25	NW	38.21	68	19	...	...	...
1865	6	2.27	...	...	38.21	74	...	...	...	...
1866	...	...	...	...	...	...	...	...	...	...
1867	4	.63	68	N	24.78	52	...	...	...	...
1868	5	.93	48	SW	47.88	87	19	...	...	...
1869	4	1.06	49	SW	35.24	72	...	28.79	29.30	28.30
1870	5	1.45	50	NW	34.82	68	...	28.69	29.15	28.20
1871	4	1.02	45	NW	46.92	83	22	...	...	...
1872	5	.92	44	SW	37.34	73	18	...	...	...
1873	4	.71	44	SW	42.02	74	3	...	...	...
1874	1	.33	58	NE	38.07	68	18	28.65	29.14	28.20
1875	2	1.21	44	SW	36.86	80	5	28.65	29.06	28.18
1876	6	3.96	58	NW	32.65	66	5	28.74	29.25	28.24
1877	3	2.70	67	SWNW	38.87	70	3	29.76	29.18	28.23
1878	5	1.77	49	SWNW	49.53	81	17	28.64	29.00	28.15
1879	0	.00	44	S	46.63	85	10	28.67	29.14	28.22
1880	2	.50	42	NW	41.24	80	2	28.57	28.99	27.97
1881	1	.75	50	NW	36.20	72	13	28.54	28.91	27.80
1882	2	.80	42	SW	46.73	78	12	28.67	29.15	28.04
1883	3	1.05	49	SWNW	39.19	73	13	28.70	29.23	28.10
1884	5	2.36	57	NE	40.75	75	8	28.60	29.00	27.72
1885	3	.33	28	SW	40.34	73	15	...	...	...
1886	7	2.00	52	S&NE	38.72	82	9	28.87	29.39	28.37
1887	3	.39	26	SW	42.85	83	23	28.96	29.47	28.61
1888	5	2.48	36	...	35.77	83	6	29.05	29.55	28.47
1889	3	1.99	32	...	43.01	77	15	29.05	29.42	28.48
1890	5	.13	35	E	37.18	77	2	28.95	29.46	27.93
1891	6	2.24	44	N	33.43	69	4	28.88	29.33	28.14
1892	7	4.60	42	NE	39.16	77	10	28.89	29.34	28.14
1893	5	.99	30	S	39.65	87	6	28.83	29.43	28.17
1894	4	.67	25	N&S	46.04	86	8	28.87	29.48	28.32
1895	3	1.20	33	S	41.73	95	5	28.82	29.24	28.36
1896	5	.87	40	N	37.66	81	8	28.85	29.34	28.03
1897	10	2.19	44	N	41.02	80	0	28.74	29.13	28.12
Sums	149	51.49	1595	...	1576.2	...	...	719.43	...	...
Means	4	1.32	43	SW	40.42	...	...	28.78	...	...

WIND RECORD.

March.	Total Miles.	Mean Daily.	Maximum Daily.	Minimum Daily.	Mean Hourly.	Maximum Hourly.
1889	6871	221.64	537	55	9.22	37
1890	8180	263.87	630	89	10.99	44
1891	9752	314.57	662	126	12.67	37
1892	11133	359.13	690	105	14.96	44
1893	10231	330.03	627	32	13.75	35
1894	11342	365.87	686	132	14.82	49
1895	9290	299.70	511	139	12.50	35
1896	10681	344.54	683	196	14.36	48
1897	9723	313.64	612	105	13.07	38
Sums	87203	2812.99	...	...	116.35	...
Means	9689	312.55	...	...	12.93	...

The Model Farm.

It is becoming more and more apparent that every farmer should turn his attention to a greater diversity of crops. It is a question whether any fruit grower or farmer can afford to buy something which he can produce himself. A farm is not complete without its garden; its chicken yard filled with a fine breed of chickens; its hog pen, full of hogs; its barn yard, stocked with the best milk cows; and, in fact, everything that can be raised for home consumption. A living is then assured, and perhaps something more; and if the main crop be it either fruit or grain, should prove a failure, the farmer's living is assured, at any rate. We must get down to actual business, remarks the *Colorado Farmer*, the same as all farmers do the whole world over. There is no occupation in life more independent, and there is no country in the world where this occupation can be made more pleasant and profitable.

General Duties and Privileges.

General good conduct, such as becomes men and women anywhere, is expected of all. Every student is encouraged in the formation of sound character, by both precept and example, and expected, "upon honor," to maintain a good repute. Failure to do so is met with prompt dismissal. No other rules of personal conduct are announced.

Classes are in session every week day except Saturday, and no student may be absent without excuse. Unexcused absences are taken into account in calculating grades. Students enrolled in any term cannot honorably leave the College before the close of the term, unless excused beforehand by the Faculty. A full and permanent record of attendance and scholarship shows to each student his standing in the College.

Chapel exercises occupy 15 minutes before the meeting of classes each morning, and unnecessary absence from them is noted. On Sunday no services are held in the chapel, but students are urged to attend the different churches of the city.

Every Friday, at 1:30 P.M., the whole body of students gather for a lecture from some member of the Faculty, or for the rhetorical exercises of the Third- and Fourth-year Classes. Once a week all the classes meet, in their class rooms, for exercises in elocution and correct expression.

There are four prosperous literary societies which meet weekly in rooms set apart for their use. The *Alpha Beta*, open to both sexes, and the *Ionian*, for ladies, meet Friday afternoon. The *Webster* and the *Hamilton* admit to membership gentlemen only, and meet on Saturday evening.

The Scientific Club, composed of members of the Faculty and students, meets in the Chemical Laboratory on the second and fourth Friday evenings of each month.

Branches of the College Y. M. C. A. and Y. W. C. A. hold weekly meetings at the College, and a union meeting on the first Friday evening of each month.

Once in each term the College Hall is opened for a social gathering of Faculty and students, in which music, literary exercises, and friendly greetings find place.

Public lectures by prominent men of the State are provided from time to time, as opportunity offers. All are free.

Labor and Earnings.

Every encouragement is given to habits of daily manual labor during the College course. Only one hour's daily practice in the industrial departments is required; but students are encouraged to make use of other opportunities for adding to their ability and means.

All labor at the College is under the direction of the superintendents of the department, and offers opportunities for increasing skill and efficiency. In regular weekly statements, the students are required to observe business forms and principles, showing from their daily account when and where the work was performed.

The shops and offices are opened afternoons and Saturdays for the accommodation of skilled students in work for their own advantage. Everywhere the student who works wins respect; and it is a matter of pride to earn one's way as far as possible.

The labor of the students in the industrial departments is principally a part of their education, and is not paid for unless the student is employed upon work for the profit of the College. Students are so employed upon the farm, in the gardens or the shops, and about the buildings. The labor is paid for at rates varying with the services rendered, from 8 to 10 cents an hour. The superintendents strive to adjust their work to the necessities of students and give them the preference in all tasks suitable for their employment. So far as practicable, the work of the shops and offices is turned to account for their benefit; and the increasing extent of the grounds and sample gardens brings more of such labor. The monthly pay roll for the past year ranges from \$250 to \$400.

Many students obtain work in the city or upon neighboring farms, and so pay part of their expenses. In these ways a few students are able to earn their way through College. The amount so earned will vary according to the tact and zeal of the student. The majority must expect to provide by earnings outside of term time, or from other sources, for the larger part of their expenses.

The long summer vacation of three months offers opportunity for farm or other remunerative labor; and no one need despair of gaining an education if he has the ability to use his chances well.

A Good Education Pays.

1. In dollars and cents. All testimony of statistics agrees in showing that educated laborers of all ranks have better work and better wages than the uneducated.

2. In influence and position. Careful estimates make it certain that the chances of promotion to places of trust and power among men are almost two hundred times as great to an educated man as to the uneducated man.

3. In usefulness. The bulk of good work in the world—discovery, invention, government, philanthropy, and religion—is brought about by those who learn to think by study.

4. In enjoyment. Our pleasures grow out of what we are ourselves more than from surroundings. A well-trained man sees, hears, and handles a great deal more of the world than an untrained one. All things do him more good, not so much because he owns them as because he understands them. He always has good things to think about.

Objects.

This College now accomplishes the objects of its endowment in several ways.

First, It gives a substantial education to men and women. Such general information and discipline of mind and character as help to make intelligent and useful citizens are offered in all its departments, while the students are kept in sympathy with the callings of the people.

Second, It teaches the sciences applied to the various industries of farm, shop, and home. Chemistry, botany, entomology, zoology, and mechanics are made prominent means of education to quicken observation and accurate judgment. Careful study of minerals, plants, and animals themselves illustrates and fixes the daily lessons. At the same time lessons in agriculture, horticulture, engineering, and household economy show the application of science; and all are enforced by actual experiment.

Third, It trains in the elements of the arts themselves, and imparts such skill as to make the hands ready instruments of thoughtful brains. The drill of the shops, gardens, farm, and household departments is made a part of a general education to usefulness, and insures a means of living to all who make good use of it. At the same time it preserves habits of industry and manual exertion, and cultivates a taste for rural and domestic pursuits.

Fourth, It strives to increase our experimental knowledge of agriculture and horticulture. The provision for extensive and accurate researches, made by establishing the Experiment Station as a distinct department of the College, offers assurance of more definite results than can be obtained by ordinary methods. The Professors of Agriculture, Horticulture, Chemistry, Botany, and Veterinary Science, together with the President of the College, form the Experiment Station Council, by authority of which experiments are undertaken and carried on in the several departments, under the special supervision of the professors. These touch "the physiology of plants and animals; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under a varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and waters; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable."

The bulletins of the Station, issued at least as often as once in three months, are sent, according to law, free of postage, to all newspapers in the State, and "to such individuals actually engaged in farming as may request the same, and as far as the means of the Station will permit." Correspondence with reference to bulletins and experiments is welcomed, and may be addressed to the several members of the Council.

Fifth, It seeks to extend the influence of knowledge in practical affairs beyond the College itself. For this purpose, farmers' institutes have been organized in more than 40 counties of the State, in which from two to four members of the Faculty share with the people in lectures, essays, and discussions upon topics of most interest to farmers and their families. These institutes, held for twelve years past, have brought the College into direct sympathy with the people and their work, so as to make possible a general dissemination of the truths presented. The members of the Faculty desire correspondence as to farmers' institutes or any questions of practical interest in agriculture or related sciences. The *INDUSTRIALIST*, published weekly, and edited by Faculty and students, gives a wide circulation to matters of similar interest in the College.

To serve a similar end, a course of thirty lectures is given at the College during two weeks in February of each year, to which farmers from all parts of the State are invited. Members of the Faculty are also prominently connected with State associations for the promotion of agriculture, horticulture, the natural sciences, and education in general.

College Business.

Loans upon school-district bonds are to be obtained from the Loan Commissioner.

Bills against the College should be presented monthly, and, when audited, are paid at the office of the Treasurer in Manhattan.

All payments of principal and interest on account of bonds or land contracts must be made to the State Treasurer, at Topeka.

The *INDUSTRIALIST* may be addressed through Pres. Geo. T. Fairchild, Managing Editor. Subscriptions are received by Supt. J. S. C. Thompson.

Donations to the Library or Museums should be sent to the Librarian, or to Prof. Popenoe, Chairman of Committee on Museums.

Questions, scientific or practical, concerning the different departments of study and work, may be addressed to the several Professors and Superintendents.

General information concerning the College and its work—studies, examinations, grades, boarding-places, etc.—may be obtained at the office of the President, or by addressing the Secretary.

The Experiment Station should be addressed through the Secretary.

MANHATTAN ADVERTISEMENTS.

R. E. LOFINCK deals in new and Second-hand Text-books, and School Supplies of all kinds, gold pens, etc.

VARNEY'S BOOK-STORE.—Popular Head-quarters for College Text-Books and Supplies. Second-Hand Books often as good as new. Call when down town. Always glad to see you.

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DR. C. P. BLACHLY, Dentist. Gold filling a specialty. Telephone No. 139.

KNOTMAN CLOTHING COMPANY offers a great variety of clothing and furnishing goods at prices to suit the times. Call without fail before buying.

extra piece of board upon the light side, with some care the wheel can be well balanced.

When a mill is used for pumping, the pump returns about 80 per cent. of the power given to it. The efficiency varies from about 85 per cent with good pumps in wells above twenty feet deep, down to 20 or 30 per cent. for poor pumps in shallow wells. Even a very good pump may give but 50 or 60 per cent. in wells less than ten feet deep. Assuming the efficiency to be about 80 per cent, then the relation between the size of pump and mill will be represented by the following:—

$$d^2 S H = 22 R^2 L,$$

in which d —diameter of the pump cylinder in inches, S —stroke of pump in inches, H —height in feet to which water is to be raised, R —half the diameter of the paddle-wheel in feet, and L —the length of the mill in feet.

In a mill 8 feet in diameter, 14 feet long, and from a well 20 feet deep, and pump stroke 12 inches, the cylinder diameter would be $d^2 \times 12 \times 20 = 22 \times 16 \times 14$, or $4\frac{1}{2}$ -inch cylinder.

Suppose one wishes to know what size mill to build to run an 8-inch pump, 10-inch stroke, and lift water 10 feet, then $64 \times 10 \times 10 = 22 \times R^2 L$, and

$$R L = \text{about } 291.$$

If the diameter of the mill be 10 feet, then $R = 25$, and the length required will be about 12 feet.

From this formula most of the questions in regard to sizes may be answered.

The greatest twisting moment due to the load on the pump at slow speed equals $4.7 R^2 L$ in inch pounds.

When the pump runs at speeds as high as 40 to 50 strokes per minute, the greatest pull on the pump rod amounts to about two and a half times the quiet load, then

$$\frac{24 R^2 L}{S}$$

equals the greatest pull in pounds. In the 8x14-foot mill the greatest pull would be

$$\frac{24 \times 16 \times 14}{12}$$

equals 448 pounds at the end of a crank six inches long.

The speed of the mill will be approximately

$$\frac{75}{R}$$

in a sixteen-mile wind. These figures may help in proportioning mills differing from the one given in the accompanying drawing. The shaft for the first two series of mills may be of 4x4 hard pine. A 4x4 having a three and a half inch round bearing can be used in wheels where $R^2 L$ does not exceed 562, and a 6x6 having a five and a half inch bearing may be used where $R^2 L$ does not exceed 2,166. The shaft must be reduced carefully to a circular bearing five inches long at two places, and near the pump end of this bearing is the weak place. The bearing should be kept as large as the section of the stick will allow. The crank may be attached by bolts as shown. It is an advantage to have it adjustable, so that in summer the stroke can be shortened, and thus use a large proportion of the light summer winds. The arms of the mill need not be very heavy. If made as suggested in the drawing, of one-inch stock, then the breadth of the arms should not be less than two inches, and for larger sizes

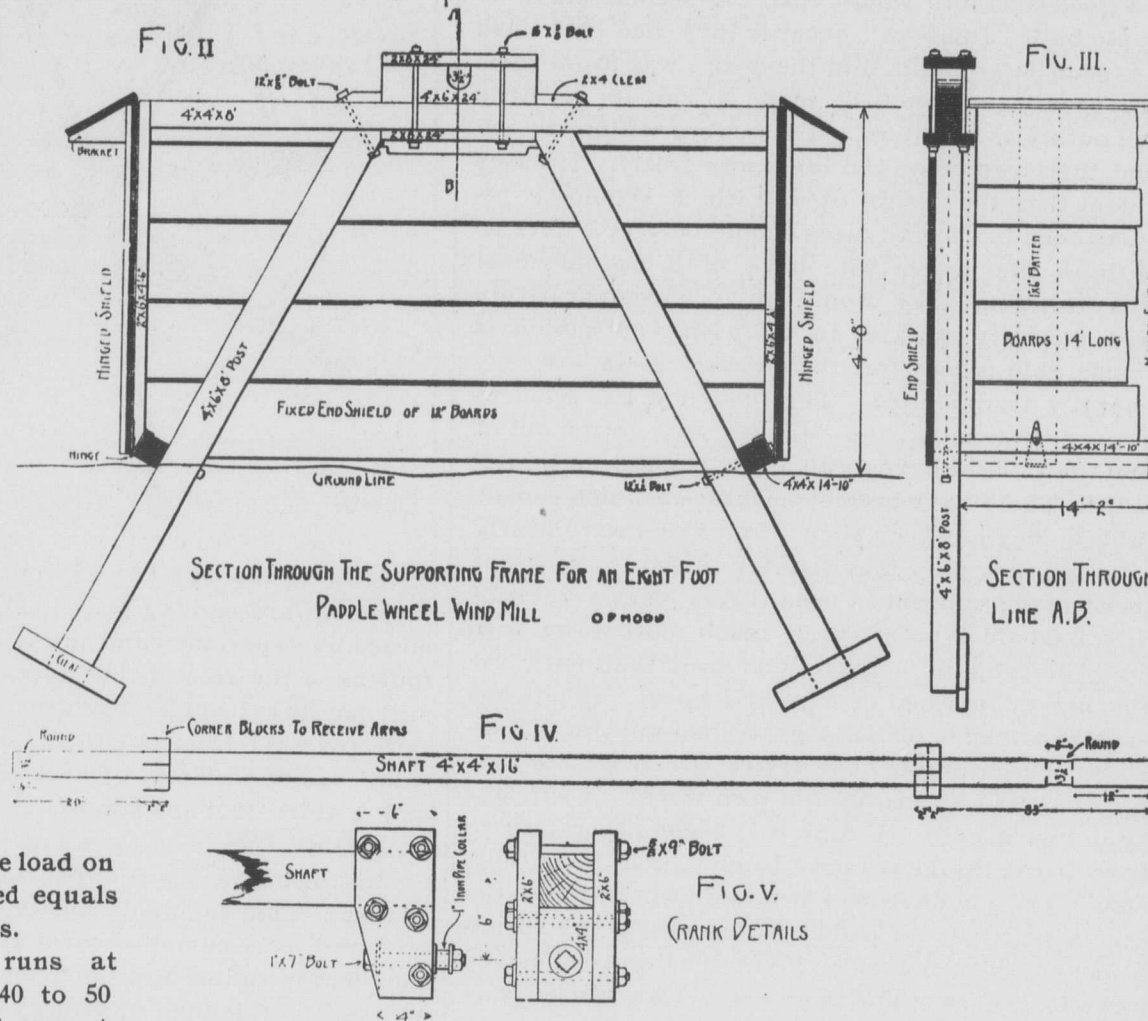
$$\frac{R^2}{16}$$

This is for one set of arms at each end of a mill not exceeding sixteen feet long.

For a 12x12 mill, this gives arms about two and a half inches wide. Corner blocks can be nailed to the shaft to form a solid bearing for the arms which straddle the corners of the shaft. The sails of the mill should be tied together by fence wire braces, running around the mill, going over the outer edge of one sail and under the bottom of the next sail, being well fastened to each by staples. Three rows

of wire bracing in mills exceeding twelve feet long are desirable.

If a mill is placed close to the ground, the front and rear shield can be hinged at the bottom. By letting down the front shield, the mill is greatly checked, and by lowering both, the mill is stopped. In this position it is as able to stand a high wind as any of the rest of the construction. Bolts are introduced wherever the tendency is to loosen the fastening. In making the crank, the 4x4 which carries the crank pin should be of such thickness that the clamping bolts shall clamp the shaft first. Care must be taken to keep these tight. By slipping a collar made of a short piece of one-inch pipe over the crank bolt, the bolt can be screwed up rigidly and stand better than if only held by the friction in the wood. By substituting a metal shaft, a wrought-iron crank and a machine-made crank-pin, a much better job can be made, of course. A casting on the shaft could form



the center for the arms.

The accompanying drawings for an 8x14-foot mill will explain themselves.

Fig. I. is a section across the wheel, showing the arms, sails, shaft, and bracing, and the method of fastening the arms to the shaft.

Fig. II. is a section across the frame supporting the wheel and shows the end posts, bearing and hinged front and rear shields.

Fig. III. is also a section of the frame, but taken through the bearings.

Fig. IV. shows the shaft and the location of the bearings.

Fig. V. shows the construction of the wooden crank on the end of the shaft.

Some of the material can, perhaps, be picked up about the place, but if bought at the lumber yard and hardware store, the lumber and bolt bill will be as follows:

LUMBER.

Sixteen pieces 1x8, 14 feet.
Four 4x4, 16 feet.
Two 4x6, 18 feet.
Two 2x6, 14 feet.
One 2x8, 8 feet.
Sixteen 1x12, 16 feet.
Thirteen 1x12, 14 feet.

Cost of lumber about \$13.50.

BOLTS WITH TWO WASHERS EACH.

Eight $6\frac{1}{2}$ x $\frac{1}{2}$.
Eight $8\frac{1}{2}$ x $\frac{1}{2}$.
Four 12 x $\frac{1}{2}$.
Sixteen $3\frac{1}{2}$ x $\frac{3}{8}$.
Four 12 x $\frac{3}{8}$.
Eight 15 x $\frac{3}{8}$.
Five 9 x $\frac{3}{8}$.
One 7 x 1 inch.

The last bolt will probably have to be sent away for or made by a blacksmith who has dies for such work. The cost of bolts will be about \$3.25.

Let us be watchful to make the attractions through our rural districts so that by the work of nature and the hand of the farmers we may draw out from the cities the hearts and hands that will help us to make our country brighter, build up the old homesteads and make our country drives easy and pleasant both to the rich and poor alike.—S. C. Bradley.

A listener at an institute must never look for specific directions to be taken as a rigid rule in farm management to govern his own efforts. His own conditions must come in as an important factor. This work can only be instructive through being suggestive—leading the hearer to consider what may be made applicable to his own case.—Maine Farmer.

Pruning Flowering Shrubs.

One of the first requisites to successful pruning is to be able to correctly distinguish between shrubs which ought to be pruned in winter and those which ought to be pruned in summer. If a mistake be made in this connection, effects diametrically the reverse of those we wish to bring about will be the inevitable result. Another important requisite to insure success is that the various kinds of shrubs be pruned in the proper season. Owing no doubt to the pressure of work in the summer time, the pruning of flowering shrubs is too often neglected, and when ultimately attended to is, as stated above, generally left to persons who, from lack of knowledge or through carelessness, cut away a quantity of wood, which, if left to the following spring, would produce a profusion of blossom.

Many people are under the impression that such shrubs as hardy azaleas, rhododendrons, etc., cannot be successfully pruned, but such is by no means the case. I have myself found it quite practicable, by judicious and careful pruning, to transform, in a few years, tall, gaunt, unshapely plants of the kinds just named into beautiful specimens. The pruning of this class of shrubs should also be executed immediately after they have done flowering, and it will be found, as stated above, that young shoots will at once develop and be in the proper condition to yield an abundance of flowers when the appropriate time arrives.

Later flowering shrubs, such as altheas, hydrangeas, robinia, hispida, clerodendron, serotinum, etc., should be pruned in the winter time. Summer pruning would indeed be highly injurious in this case, for the simple reason that by cutting away any of the young growths we would, in most instances, be mutilating that part of the shrub on which the flowers are produced. Winter pruning is a comparatively more simple operation than summer pruning, from the fact that at this season plants cut back to almost any part, and in the spring young shoots will break away and produce a profusion of blossoms at the proper time.

Let us take, for instance, such shrubs as forsythias, viburnums, exochorda, grandiflora, prunuses, many spiræas, weigelas, etc., which flower in the spring or early summer. The proper time to prune such shrubs is immediately after they have done flowering. If the plant to be operated upon be young and expected to grow larger in order to fill its place in a bed or elsewhere, all that will be found necessary will be to cut away part of the previous year's growth. Special attention will, of course, have to be paid to the balance of the plant, and the operator must, as far as circumstances will permit, strive to give it a natural and graceful form. If the plant has attained the desired size, the old shoots can be thinned out and cut back to suit the situation and taste of the parties immediately concerned, and it will be found that young shoots will at once develop and be in the proper condition to yield an abundance of flowers the ensuing year. A specimen can thus be kept in good shape and form for many years without any apparent change in its size. In a mixed shrubbery, this method is of great advantage, as it limits each plant to its allotted space and prevents it from encroaching on its neighbor, or obscuring from view many of the finer but less robust growing shrubs.

For shrubs having an effect from their fruit or foliage, such as barberry, eunonymus, callicarpa, mahonia, etc., I would recommend winter pruning. If trimmed in the summer time, it gives them a stunted appearance, which mars the beauty of their foliage at a time when it shows to the best advantage and is most appreciated.

It will be observed that in the foregoing remarks the pruning of flowering shrubs is simply treated in a general manner. It goes without saying that it would be almost impossible, and especially in a short article like the present, to lay down a hard and fast rule that would apply in all cases; for the fact is, that in order to obtain the best results each species requires special treatment, a thorough knowledge of which can only be acquired by practice and training. If, however, the hints given above be attended to blundering in pruning, and the failure and disappointment consequent thereon, can, to a very great extent, be averted, and many a shrubbery can be transformed from a chaotic mass into a thing of beauty—at once a pleasing view to the eye and an ornament to the landscape.—American Gardening.

Laws of Teaching.

1. There is no school unless the father, the mother, the teacher, and the pupil keep school together.
2. Know thoroughly the subject to be taught and explain to the pupil why you teach it.
3. Gain and keep the attention of the pupils. Excite their interest.
4. In your teaching use language that your pupils understand.
5. Begin with the known and go by easy steps to the unknown. Take the whole class with you!
6. Excite self-activity in the pupils and lead each to discover truth. Show the class how to study.
7. In each lesson let a halt be made and then have pupils fix points already made, the conclusion reached, and the premise upon which the conclusion is based.
8. The teaching must touch the whole nature of the child and stimulate to higher action and more industrious habits of work, of silence, of obedience, honesty, and truthfulness. Three-fourths of education is a habit of work.—J. M. Greenwood, in Midland schools.

Calendar.

1896-97.
Fall Term—September 10th to December 19th.
Winter Term—January 5th to March 27th.
Spring Term—March 30th to June 10th.
June 10th, Commencement.
1897-98.
Fall Term—September 9th to December 18th.

To School Officers.

The College Loan Commissioner has funds now to invest in school district bonds at par. The law requires that no bonds be sold at par or less without being first offered to the State School Fund Commissioner and the State Agricultural College. Address

GENERAL LOCAL NOTES.

Miss Callie Crandall of Jewell City visits with her brother, a First-year student.

Mrs. Kedzie lectured on Saturday before the Domestic Science Club of Lincoln.

Pres. Fairchild attends a meeting of the State Board of Education at Topeka, today.

Rev. W. J. Osborne of Kansas City, agent of Baker University, the M. E. College at Baldwin, visits College today.

The girls of the Cooking Class served several lunches for the Board of Regents during their session last week.

The Chemical Department has just received an American three-cell storage battery for use in laboratory practice and class work.

Prof. Hood writes an exhaustive article for the *Kansas Farmer*, detailing recent experiments with "Jumbo" windmills, which is reprinted in this paper.

Prof. Lantz has just received from far-off Queensland a photograph of Prof. Shelton which shows the original to have aged slightly, but no other change is apparent.

Prof. M. A. Scott, formerly Superintendent of Schools in Binghamton, N. Y., and his wife, visited College Tuesday morning, in company of Mrs. Purcell and Mrs. Fox of this city.

Prof. Olin will deliver the annual address at the commencement of the Hutchinson High School on June 13th. The graduating class numbers twenty-eight, the largest class that has graduated from the school.

The forsythias are in full bloom for the first time in several years. Their yellow flowers add a pretty dash of color to the prevailing green of the landscape. The Japan Quince is in bud, and promises a wealth of brilliant red bloom in a few days.

The Regents and Faculty met at tea on Tuesday evening preceding the joint meeting. Post-graduate students acted as hostesses. Brief talks followed by Regents Kelly, Hoffman, St. John, Hudson, and Limbocker, all of whom expressed their interest in the college.

Mr. Chas. A. Keffer, of the division of forestry, U. S. Department of Agriculture, is here to note the condition of the forest plantation. This is one of the six stations where trees are grown experimentally, the other five being in Minnesota, South Dakota, Nebraska, Colorado, and Utah.

Result of election for student editors: Fannie Carnell, 26; Mabel Crump, 50; Anna Engel, 63; Phil Fox, 115; Marie Haulenbeck, 43; C. B. Ingman, 79; Gertrude Lyman, 220; Mary Norton, 81; R. J. Peck, 135; Eva Philbrook, 11; R. M. Philbrook, 38; H. J. Robison, 28; C. H. Stokley, 27; Olive Voiles, 29; J. M. Westgate, 103; Mark Wheeler, 70; Clara Wilson, 67; illegal votes, 3. Gertrude Lyman, Philip Fox, and R. J. Peck were elected.

There have been added to the geological series in the Museum two collections of great interest from the establishment of H. A. Ward, Rochester, New York. The collection of greatest present use to our students in this science is doubtless that called the "structural and phenomenal" series. In this collection are given typical examples in illustration of the different varieties of structure and texture, together with others showing formations of interest to the reader of the book of the rocks. Excellent specimens of rain prints, ripple marks, faults, glacial work, and features of eruptive structure, together with a series of casts of famous meteorites, are here included. The second collection is the "general stratigraphical collection," and this includes one hundred specimens, uniform in size, of typical rocks from various parts of the world, arranged in stratigraphical order, and showing the different lithological characters belonging to, as well as the succession in order of, the more prominent geological formations. All the specimens are mounted on walnut blocks with neat labels giving ample data, and cannot fail to add greatly to the interest of the science in our class rooms.

GRADUATES AND FORMER STUDENTS.

R. J. Brock, '90, is elected a member of the Manhattan Board of Education.

Wm. Ulrich, '77, was chosen as a Councilman at the election in Manhattan on last Tuesday.

May E. Willard, '95, writes that her school near St. Marys will close April 23rd, after which her postoffice address will be Wamego.

BOARD MEETING.

The Board of Regents met Tuesday afternoon, April 6th, with all members present, and organized as follows: Hon. Harrison Kelley, President; Mrs. J. P. St. John, Vice-President; Hon. C. B. Hoffman, Treasurer; Hon. T. J. Hudson, Loan Commissioner.

The President appointed Standing Committees as follows:—

Finance—Regents Limbocker, Noe, and Daughters.
Grounds and Buildings—Regents Limbocker, Daughters, Noe, Hoffman, Hudson, and St. John.
Farm—Regents Hudson, Limbocker, and Kelley.
Employees—Regents Hoffman, St. John, and Kelley.
Horticulture—Regents St. John, Noe, and Hudson.
The Board was in session till Wednesday noon, April 14th, but on Saturday evening took a recess till Monday afternoon, and fixed the date of next meeting for June 7th next. For want of a quorum on Monday, the recess was extended to Tuesday afternoon, when Regents Kelley, Hoffman, St. John, and Limbocker were present.

At the joint meeting of Board and Faculty on Tuesday and Wednesday evenings, full reports were made of the work, condition, and needs of all departments.

The Board gave a hearing on Wednesday morning to Mr. Wood, an architect, who made a proposition for service in plans for new building. Mr. Wood is to be notified as soon as the employment of an architect is settled by the Board.

The Building Committee is to be allowed only actual expenses for special meetings at the College.

Prof. Walters presented, by permission, plans for Domestic Science Hall, with an estimate of its cost—including heating and plumbing. The plans were adopted, and Prof. Walters was instructed to draw up full specifications and submit them to the Committee on Grounds and Buildings for the purpose of advertising for bids. The location of the building, southwest of Main Building, as indicated by stake, was approved.

The Board accepted the proposition of Regent Hudson to compile for publication, free of charge, laws relating to the College.

The bid of Ewing Herbert of Hiawatha, for Experiment Station printing was accepted, provided bid is fully understood by both parties.

The consideration of the claim of the United States School Furniture Co. was postponed until the next regular meeting of the Board.

President Fairchild was authorized to endorse the application of Capt. Cavanaugh for relief from detail as Professor of Military Science and Tactics after August 31st.

The application of Lieut. Harrison of the Second Cavalry for the chair of Military Science and Tactics was referred to the Committee on Employees.

It was decided to abandon the sub-stations at Oakley and Oberlin.

On account of lack of funds, the publication of the College Hymnal was deferred until after July 1st.

The question of extending agricultural studies in the course was referred to the Faculty, with instructions to report at the next meeting of the Board; and the Faculty was also instructed to report on the advisability of making the farm and garden industrial elective.

The President of the College was authorized to make requisition for twenty-five guns and three swords, with authority to give bonds and insure the property.

The Treasurer was authorized to provide for the monthly pay-rolls, as usual at this time of year.

The action of President Fairchild, in securing Dr. Washington Gladden for the Commencement address, was approved; as was also his action in advertising in the *Chautauqua Herald*, of Ottawa, and the *Western College Magazine*, of Kansas City.

The expenditure of special appropriations for the several departments during the next year is left to be decided by the several heads of departments in consultation with the President of the College.

Authority was granted to confer the degree of Bachelor of Science at Commencement upon Mr. Geo. Doll.

The bond of the Treasurer-elect was presented and approved.

Report of the Committee on Finance, recommending a special committee, consisting of the Secretary, Chairman of the Finance Committee, and the Treasurer-elect, to settle with the out-going Treasurer, was adopted.

The following expenditures were authorized: Tuning and repairing pianos, \$40; importation of chemicals, \$150; for matting, \$50; stools for entomology classes, \$20; wood clamps, \$20; microscopes for Horticultural Department, \$27; induction coil, \$105.70; plants for botanical herbarium \$150, cupboard \$20, chart-holders \$6; labor on Farm Foreman's yard, \$20.

Prof. Hood was authorized to go forward with work on clothes-room for the shops and with electric lighting. The wants of the Farm Department were referred to the Committee on Farm, with authority to order such expenditures as may be found necessary.

The question as to the care of sewage from the Library Building, now emptied into the southwest pasture, was referred to the Committee on Grounds and Buildings.

Authority was given to rent a three-acre lot belonging to Mr. Shumway for the current year at \$3 per acre.

The President was authorized to make requisition

for 7,000 catalogues, including a prospectus for 1897-'98, as directed by the Committee on Employees.

Direction was given that the College flag be raised daily during the year unless prevented by storm.

A petition from a committee of Cadet officers in behalf of a proposition to authorize the purchase of uniforms by the students, to be worn at their pleasure, was not granted, but authority was given to purchase thirty uniforms similar to those now in use, provided payment can be deferred until after July 1st.

It was voted that two delegates be sent to the meeting of the Association of American Agricultural Colleges and Experiment Stations at Minneapolis, July 13th, and that President Fairchild be one of the delegates.

The base ball team presented a petition to the Board, upon which it was resolved, "that, in view of the fact that the Faculty has declined to permit the base ball club to play more than two games outside of Manhattan, we decline to re-open the subject."

Regent Daughters was requested by telegram to immediately make his settlement as treasurer, and upon his answering that he could not come, but would send report and books as the Board might direct, the President of the Board was authorized to make a draft upon Regent Daughters, in favor of Treasurer Hoffman, for the amount shown by the books of the Secretary to be held by him in the income account, and final settlement was required by April 16th.

The following resolution was adopted: "Resolved, that the term 'school year' as employed in the act entitled 'An Act, etc.' shall begin July first of each year and end June 30th of the following year, and that the term of employment of all present employees shall expire June 30th, 1897."

President Fairchild, by permission, on Friday morning filed the following statement:—

"In view of the resolution of yesterday terminating the employment of all employees on the 30th of June next, I fear most seriously the continuity of the College, unless immediate action is taken with reference to re-employment of such members of the present Faculty as may be acceptable. I therefore urge such action now; and in order to free the Board from embarrassment on my personal account, I hereby decline to be a candidate for the Presidency, and cannot conscientiously accept re-election if tendered."

Reports of the Committee on Employees, made at various times, recommended as follows:—

"That Prof. Thomas E. Will be elected President of the College, to fill the vacancy occurring July 1st next."

"That John D. Walters, Oscar E. Olin, O. P. Hood, Ernest R. Nichols, Julius T. Willard, Josephine C. Harper, Alice Rupp, and Julia R. Pearce be employed for such positions as the Board of Regents may hereafter designate."

Also, "the employment of Ira D. Graham, Mrs. Nellie S. Kedzie, Mrs. Elida E. Winchip, Alexander B. Brown, Albert S. Hitchcock, and George Sexton, for chairs and positions hereafter designated by the Board of Regents."

Also, "that Robert Huddleson be employed as engineer, William L. House as foreman of carpenter shop, Enos Harrold as foreman of the iron shop, Jacob Lund as fireman, E. Emrick as janitor, Lorena E. Clemons, and D. H. Otis."

Also, "that the matter of Prof. Mayo's re-employment be deferred till the next meeting of the Board. Also, that the publication of the catalogue be deferred to the next meeting of the Board."

The employees thus tendered positions were invited before the Board or the Committee on Employees, and all accepted except Mrs. Kedzie, who declined to remain after June 30th. Several members of the Faculty not reappointed were invited before the Board. Professor Georgeson stated that he did not desire to be an applicant for his position. Professor Popenoe was willing to be considered an applicant for the position he now occupies.

Prof. Fairer accepted the resolution of the Board as terminating his services, but would not accept it as to salary. Prof. White would be ready to consider at any time prior to the 10th of June next any proposition for future employment. Prof. Mason was informed that he was discharged from the service of the College, to take effect June 30th, 1897, on account of general inefficiency. Prof. Lantz accepted the situation as terminating his service June 30th, 1897, but not as to salary; and the leave of absence granted him at a former meeting was revoked. Superintendent Thompson declined to be considered a candidate for re-employment.

Miss Grace Clark having been tendered, by the committee, a place similar to that now occupied, declined it.

The following resolution presented by Regent Hoffman was adopted:—

"Whereas statements to the contrary have been and are being industriously circulated, the Board of Regents hereby expressly declare that Prof. Will is in no sense responsible for the amendment to Senate bill No. 547, whereby the President of the College was deprived of his regency; that he did not instigate or suggest the removal of President Fairchild from the Presidency of the College; that Prof. Will was not an applicant for the Presidency of the College, and that at no time has he ever suggested his desire or willingness to occupy the office of President of the College, until directly interrogated by members of the Board at the present session."

The Board adjourned on Wednesday noon to the date previously fixed, June 7th, 1897, at 3.30 P. M.

The publication of the *INDUSTRIALIST* has been delayed two days that the full report of the proceedings of the Board of Regents might be printed.

Preparations for the Ionian annual are in evidence almost daily in rehearsals of the musical numbers.

A host of visitors were noted at chapel exercises on Saturday afternoon.

The Alumni Protest.

Pursuant to call of the Vice-President, a meeting of the resident Alumni was held at the College Saturday evening, April 10th. Though the notice was given late in the afternoon, fifty members were called to order by President Ulrich, who briefly stated the object of the meeting. A committee was appointed to draft resolutions, expressing the sentiment of the meeting concerning the action of the Board of Regents towards President Fairchild and a change in the policy of the institution.

The report of the Committee, as amended and adopted, is given below. By vote of the meeting, the Secretary was authorized to attach the signatures of the members present to the resolutions, and others of the Alumni who wished to endorse them. It was also ordered that the minutes of the meeting be placed on the regular records to be read to the assembled Alumni in June, also that a copy of these resolutions be sent to President Fairchild, and published in the *INDUSTRIALIST*, the *Students' Herald*, the city papers, the *Topeka Capital*, and *Topeka Journal*. It is believed that seventy-five of the resident Alumni will heartily endorse the following resolutions:—

"Realizing the true worth and the world-wide reputation of our Agricultural College, its usefulness to our State, and its high standard of excellence among other educational institutions; that annually it is graduating from its halls, and has been for years, young men and women who return to the farm and workshop, not only to perform manual labor, but to live complete lives, and to develop and honor their calling, and believing that its high place among colleges of its kind is due to the personal influence, tact, and superior executive ability of its honored head; and believing that a change in the policy advocated and maintained for seventeen years by our esteemed President will be a severe blow to the progress and reputation, and in direct opposition to a rational educational spirit of the time, from which it will not recover in a generation, we, resident members of the Alumni Association of the Kansas State Agricultural College, do hereby resolve:—

"That we desire to offer an earnest protest against any radical change in the policy of the institution.

"That in the removal of our worthy and esteemed President, George T. Fairchild, we feel that our Alma Mater has lost its best friend—a tried and true man who has given the best years of his life to its upbuilding and development. Against the action of the Board of Regents, in the removal of President Fairchild, we further earnestly and sincerely protest, and express our sincere sorrow and regret at said action, and also our conviction that a radical change in spirit, methods, and management will result in irreparable injury and loss to our institution, our State, and our nation.

"That we, being of different political faiths, are not prompted to this action by party prejudice, but because we esteem, honor, and love our Alma Mater and the honored man who has shaped its destiny for the past seventeen years, and through his earnest work has placed its name at the head of the list of agricultural colleges of the world.

"WM. ULRICH,
"President of Alumni.
"LORA WATERS,
"Secretary of Alumni."

The College Wins the First Game.

The College Ball Club engaged the Fort Riley team on their own grounds on Saturday afternoon, and defeated them by the close score of 4 to 3.

The Fort Riley Club will play a return game here next Saturday, and the Washburn College Club will come the Saturday following—the 24th.

THE SCORE.

K. S. A. C.					FORT RILEY.						
	A. B.	R.	I. B.	P. O.	A. E.		A. B.	R.	I. B.	P. O.	A. E.
Noble, 1 b.	5	0	0	10	1	Corisedin 2b. 4	1	1	4	2	0
Dial, 2b.	4	1	1	3	2	Faun, 1 b.	4	0	0	7	1
Ashbrook, 3b. 4	0	2	4	3	2	Means, 1 f.	4	1	1	1	0
Cheadle, r. f. 4	1	0	0	0	1	Hayward, c. f. 4	0	0	0	0	1
Green, c. f.	4	0	2	1	0	Stegman, s. s. 4	0	1	0	1	0
Poston, s. s.	4	1	1	0	4	Fritz, r. f.	4	0	1	0	0
Menke, 1 f.	4	1	1	2	4	Baker, 3b.	4	0	0	4	3
H. Wagner, p. 4	0	1	1	1	1	Davis, c.	3	1	0	9	1
G. W. gner, c. 4	0	0	6	2	0	Crooch, p.	3	0	0	1	4

K. S. A. C.	1	2	3	4	5	6	7	8	9
FORT RILEY	0	0	0	0	2	1	1	0	0
	1	0	0	1	1	0	0	0	0

Bases on balls—Wagner, 5; Crooch, 1.
Struck out—Wagner, 7; Crooch, 3.
Left on bases—K. S. A. C., 4; Fort Riley, 2.
Double plays—Fort Riley, 1.
Umpire—Gilbert.

Notes from the Library.

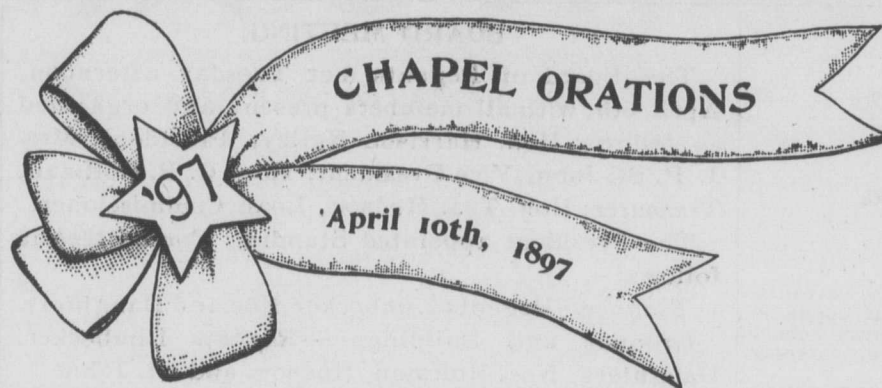
A box of old Government reports were received from Mr. O. E. Morse as a donation from his private library. These books, though thirty to forty years old, are all the more valuable as they supply missing numbers which are now scarce and hard to obtain.

Books and Their Makers in the Middle Ages, in two volumes, by Geo. H. Putnam, is a new work added by purchase which will greatly aid in the study of literature especially, but bears also upon the history of book publishing and general history.

The substitution of boxes with small openings in the top for the files, as receptacles for the draw and return slips, have been tried since the beginning of the Spring Term, and prove satisfactory. The slips are not mutilated by this method, and for this reason are much more easily handled.

The portraits of Rev. I. T. Goodnow, Ex-Regent Joshua Wheeler, and Governor Harvey have been taken from the Reception Room and placed on the west wall of the Library room. They add greatly to the appearance of the room.

A box received from the State Bindery contained



PROGRAMME

Selection—Cadet Band

A Modern Reformer	Charles H. Stokely
Habit	Olive Voiles
Civil Service Reform	Alfred C. Smith
Vocal Solo	"Thine Eyes So Blue and Tender"
	B. R. Brown
	With Violin Obligato—Phil Fox
Why Wait for the Future?	William J. Rhoades
Rural Lawns	Phoebe Smith
A National University	Charles W. Shull
Vocal Solo	"Good Bye, Sweet Day"
	Mary Lyman
Reform in the Jury System	Bret R. Hull
A Product of Civilization	Edward Shellenbaum

MOTTO:—On, ever on, to a Purpose.

ninety-eight volumes, sixty-one of which were *Industrialists*, Vol. 22. Another box will be made up and sent to the bindery this week.

The Library has, for the last two weeks, been receiving, entering, and cataloging books added by purchase. A few are purely scientific, but quite a number are classified under literature and music. The complete list appears in the Library Accession list, and the books have been labeled "New Books" and placed on the catalogue case for public inspection.

I. A. ROBERTSON.

April 10th.

In the absence of President Hepworth, Vice-President Maelzer called the Hamiltons to order and a large number of members responded to roll-call. Prayer, E. O. Farrar. W. L. Hail was called to the chair and the following officers were installed: Vice-President, G. F. Farley; Recording Secretary, O. R. Smith, Corresponding Secretary, Wm. Poole; Treasurer, A. J. Leonard; Critic, C. B. Ingman; Marshal, Wm. Anderson; Board of Directors, V. Maelzer, L. Fitz, H. W. Rogler and M. W. Sanderson. The Board reported favorably upon the name of O. I. Purdy for membership. E. M. Clark took the oath of membership. The program, which was an unusual one, was opened by C. L. Reme with a declamation. Phil Fox, prevaricator, told of his travels in Africa. Merrynaker H. W. Rogler favored the society with two mandolin solos and a charming story. H. McCaslin, agitator, gave his views on many of the important things in society. V. Maelzer showed his ability as insinuator by giving the members some gentle hints about their few thoughtless actions. A. D. Whipple, prognosticator, told of some interesting things that he had seen in his dreams. B. H. Shultz, operator, brought in a large music box and operated it to the satisfaction of all. S. J. Adams, with the aid of his assistant, aggravated the society for twenty minutes in spite of the numerous points of order and appeals. H. Pratt, musicator, exhibited his impersonating talent by singing an Irish song. After ten minutes recess the critic gave his report and the society entered into a business session which was kept lively until the adjournment hour.

W. P.

A delegate convention of the Association of American Agricultural Colleges and Experiment Stations is called to meet in Minneapolis, July 13th. In accordance with the provisions of the constitution, the Section on College work and the Section on Botany and Horticulture have been designated "to present in general session a portion of the subjects coming before them." The following subjects will come up for consideration: Organization of a permanent section on Irrigation; the report of the Committee on Codification; the report of the Committee on Revising the Constitution of the Association; the report of the Committee on a Uniform Method of Seed Testing. Prof. Henry T. Armstrong, Ph. D., F. R. S., Professor of Chemistry in the London Institution, has been commissioned to come to this country to represent the Lawes Trust and deliver lectures on the Rothamsted investigations. He will address the convention. The headquarters of the Association will be at the West Hotel, Minneapolis. The general program and programs for the sections will be duly issued, together with a circular of information as to hotel rates and places of the meetings.

April 10th.

The Alpha Betas were called to order at the usual hour, by President Shellenbaum. Music from the Alpha Beta Band opened the exercises. After prayer by Mr. Hulett, the following officers were installed: President, Grace Dille; Vice-President, G. D. Hulett; Recording Secretary, H. A. Martin; Corresponding Secretary, Inez Manchester; Treasurer, Nora Reed; Marshal, Laura Pritchard; Critic, R. W. Clothier; and members of the Board, Anna Streeter, Florence Martin, F. W. Christensen and J. F. Crowl. Aviolin solo by R. W. Clothier was appreciated by the Society. In view of the fact that the "new woman" has occupied so much the attention of writers and speakers, Bertha Ingman, in an oration, delivered well some thought about the future of "The New Man." Following this was a declamation, "The Prodigal Daughter," by Mr. Collins, and spoken in a manner that brought out the humor of the selection. The question for debate, "Is the extensive lecture system of giving instruction at this College the best method that could be used?" was argued affirmatively by Alice Shofe, and negatively by Eva Philbrook. Both presented good points. The next number was a mixed quartet composed of Messrs. Hulett and Crowl and Misses Wilder and Blachly. The Gleaner, by the First Division, was edited by Lucy Cottrell, having the motto, "Be a specialist if you would succeed." After recess a male quartet composed of Messrs. Hulett, Clothier, Crowl, and Crowl kept the Society in laughter. Rules were next suspended, and W. C. Lee, an old Alpha Beta told us something of the early history of our Society. The time for extemporaneous speaking was spent in discussing "How best can we learn Parliamentary Rules?" The business of the Society was then taken up and transacted.

I. I. M.

April 10th.

President Bishoff called to order a rather meager attendance of Websters. After prayer by L. H. Lehmkuhl, was roll call and reading of the minutes, during which the hall filled up. The following officers were inaugurated: President, Mark Wheeler; Vice-President, T. W. Allison; Recording Secretary, J. H. Bower; Corresponding Secretary, C. B. White; Critic, T. W. Allison; Treasurer, H. P. Nielsen; Marshal, T. C. Melbert; Board of Directors, Schuyler Nichols, J. A. Conover, Geo. Martinson, L. E. Potter, Harry Webster. Responding to the call for an inaugural, President Wheeler enumerated briefly the needs of the Society, and outlined the policy of the administration. Ex-President Bishoff then spoke a few earnest words concerning the work he was laying down. L. W. Waldraven was initiated into membership, after which the regular program was taken up. In debate upon the subject, "Resolved, that the Webster Constitution needs a thorough revision," W. B. Chase and G. W. Owens pointed out articles either ambiguous or indefinite; J. B. Norton and J. A. Lee urged that we stand by the constitution under which so many Websters have laid the foundation for a successful career. The affirmative won the question. C. H. Stokely gave an interesting talk about the use of the library, urging lower classmen to use their spare moments in topical reading. After a piano solo by W. J. Rhoades, a bright number of the Webster Reporter was presented by J. A. Conover. Following recess R. B. Mitchell gave the oration of the evening, his subject, "The Beauty of Symmetry." Messrs. Allison, Berry, and Owens next conducted a discussion on the subject of "Matrimony;" taking the subject seriously they presented many good thoughts. After music under the direction of L. E. White, Rev. A. J. White, an Ex-Webster, favored us with a brief address. A short business session followed and the Society adjourned at 10:45. C. B. W.

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THOMAS E. WILL, A. M., Professor of Political Economy.

MISS JULIA R. PEARCE, B. S., Librarian.

ASSISTANTS AND FOREMEN.

C. M. BREESE, M. S., Assistant in Chemistry.

GRACE M. CLARK, B. S., Stenographer in Executive Office.

LORENA E. CLEMONS, Clerk in Secretary's Office.

BERTHA WINCHIP, B. S., Assistant in Sewing.

WM. BAXTER, Foreman of Greenhouses.

W. L. HOUSE, Foreman of Carpenter Shop.

ENOS HARROLD, Foreman of Iron Shops.

GEO. SEXTON, Foreman of Farm.

C. A. GUNDAKER, Engineer.

E. EMRICK, Janitor.

JACOB LUND, M. S., Fireman and Steam-fitter.

ASSISTANTS IN EXPERIMENT STATION.

F. A. MARLATT, B. S., Entomology

F. C. BURTIS, M. S., Agriculture.

D. H. OTIS, B. S., Agriculture.

GEO. L. CLOTHIER, B. S., Botany

I. JONES, B. S., Horticulture

THE STUDY OF DOMESTIC ECONOMY.

BY MRS. NELLIE S. KEDZIE.

THE general object of teaching domestic economy is always understood to be the betterment of homes. It is held that the more knowledge a girl has of home management, the more able she will be to manage her own home, when she has one. It is held, also, that accurate knowledge of the way to perform household duties not only makes a girl independent of hired help, but also makes her a good mistress, if she be able to employ servants.

The many lines which must be taught to a girl when she really studies household economy make the study, of necessity, one which can never be wholly finished. It is not like arithmetic, of which one may say, "I know arithmetic;" but is more like botany, which gives a new flower or plant or fungus just as often as the student feels he has thoroughly mastered the growth in life and the death of the one in hand.

We often feel that the definite tasks of sewing and cooking are the first problems that a girl must solve; but do we appreciate how much of brain and hand skill these two branches must employ? Many a girl who "sews a long seam," and does it most perfectly, cannot, without long training, cut a garment accurately. She has not, instinctively, the faculty to make a shape with her scissors, and the study of geometry is necessary for her to do good work in the cutting and shaping.

Again, the one who learns readily to cut and shape may never bring herself to the drudging work of making stitches that are so even and accurate as to make the whole garment seem as one piece. "Talents differ," and every girl holds possibilities of good work; though every girl needs training in some directions more than she does in others. The making of garments is not all; for cloth must be bought—and just here lies a field for much thought. Were we sheep, with our clothes given us, we might still need to sew; for there are many useful lessons in the task itself. But when the various materials made from cotton, linen, silk, and wool are put in tempting array before the average woman's eyes, the selection of such as will best serve her purpose and still be within reach of her purse is a problem that every woman must solve many times every year.

There are few studies which can be spared from the list of those which are helpful to a full knowledge of domestic economy. Botany must be given a place; for how much of our food comes directly from the plant. Horticulture also; for our gardens are most desirable helps in our daily menu. Hygiene cannot be neglected; for no woman does her best work without the vigorous good health that should be her heritage. Mathematics, to teach her to reason, will also help her in cooking; for even the colored "mammy" reasons from cause to effect in her preparation of many foods.

No study which trains the brain or helps the imagination or strengthens the will or enlarges the reason can come amiss; for every power will find place in the work of the home. In the cooking, the deft handling of materials, the proper combination of those which will together produce the food needed in the system, calls for so much knowledge of chemistry as will aid in the selection and the mixing of the materials, as well as the application of heat. There are fixed laws that govern all the cooking of foods.

Heretofore we have all had to learn by experience; and our mothers were better cooks—when they were fifty years old, perhaps—than the graduates of cooking schools are when they graduate. The school of experience is a wonderful teacher. Today we learn to apply our known principles.

After all, the whole problem resolves itself into the task of making the home the spot where men and women obtain that which will enable them to become strongest and wisest.

We seem inclined to think if a woman can make many palatable dishes, if she can serve each meal in a dainty manner, and keep her bills within her allowance, she is an expert in domestic economy; but she knows there are many skeletons in her kitchen which come grinning at her every day, and which demand her anxious thought to keep them from disturbing the peace of her household.

Truly, "A woman's work is never done." When a girl in her college course studies domestic economy, she soon finds that she is only opening for herself new lines of thought and care. The practical details

which she teaches her hands to master will help every day, because she can then put more thought on the problems of management. While sewing and cooking are important matters in the life of a school girl, the ability to think is the most desirable of any attainment. The girls who find themselves able to recite one hour in general history, and spend the next making digestible bread, or who can turn from the pie just put in the oven to the characters in Hamlet, will wake up some day to the fact that they can control their thinking powers as well as they can their well-trained fingers.

The full study of domestic economy means the work which will make capable, helpful women; and when this is accomplished, one half the world is educated.

Farmers' Reading.

That the prosperous farmer in these days must be a thinking, reading, progressive man needs not to be said. It is self evident. He is competing with the world, or rather, with farmers in all parts of the world. He lives in a day of machinery, labor-saving, time-saving, work-saving. He must keep up with the times or fall behind in the race. Nevertheless he cannot afford to read everything, but only that which bears directly upon his life and upon his work. Reading matter of all kinds is being forced upon the Iowa farmer today. It is unparalleled in cheapness. Low as prices of products are, he can get reading matter proportionately cheap. He cannot, however, take the time to read all this matter that is forced upon him, nor even all of that which he can well afford to buy. The farmer is not a gentleman of leisure. Time is money to him, especially the summer time. It is, therefore, a waste of money to subscribe for papers which he has no time to read and a constant provocation to have them come without having been subscribed for, or after their time has expired. He must, therefore, make his selections and discriminate, and on this point we venture to offer a few suggestions.

We do not believe there is any agricultural paper of good moral tone published that is not worth the money that is asked for it; even if it is mostly chaff, there are enough grains of wheat in it to equal its cost. The trouble is the farmer cannot afford to take the time to sift the wheat from the chaff. He needs some kind of an automatic, self-acting windmill that will blow the chaffy papers clear out of the yard and save him the time and trouble of wading through them. He can easily construct this kind of a mill. First, don't allow any paper to come as a permanent visitor to your home unless it is subscribed and paid for. Look carefully over every sample copy that comes duly marked as such. There is no pay asked for these. They are simply strangers who come knocking at the door seeking to introduce themselves. Read them over carefully and see whether you want any more of their acquaintance.

Another way is to stop all general agricultural and political papers that continue coming after the time for which you have subscribed has expired. If you want them any longer, subscribe; if you don't, write on a postal card, just one word, "stop," and if they continue coming notify the postmaster to notify the publisher. This he is required to do. These two measures will get rid of most of the unworthy newspapers. It is then time to look over the rest. No man can afford in these days to spend his time in reading a paper that is not well written and does not interest and take hold of him. The farmer is not required to read papers as school boys read their text books and exhaust himself in trying to be interested. When the preacher told the sexton to give Deacon Jones some snuff to wake him up, the sexton did well by replying, "Parson, hadn't you better put a little snuff in the sermon?" Life is too short and too valuable to be spent in reading any paper, some part of which does not take hold of the reader and enchain and fix his attention.

The farmer cannot afford to spend time in reading a paper in which the writers evidently do not know what they are talking about, and that are evidently written by the line, or by the column; so much space, so much money. The temptation to fill with "cram" is so great that few are able to resist it. Many noted authors who, when unknown, wrote a book out of their hearts that gave them money and fame, are now writing by the column, and many of them by the word, and turning out tailings instead of wheat; giving down the bluest of milk instead of cream. Unless a man has something to say that he believes

in, it is not worth reading. It is easy to tell whether the writer is writing hearsay or knowledge. When an editor advises his reader to put manure in rail pens as the best method of keeping it over winter he had better be watched afterwards. Think of a farmer spending his time mauling rails, building rail pens and putting manure in them; the smoke rising in the morning like incense around a sacrifice and the soluble matters in the spring darkening the sloughs into which the barnyards empty for half a mile. Who wants to read such truck as that?

The farmer should read agricultural papers that know something about his own state, his own conditions, his soil, his climate, what grasses will grow and under what condition, what trees it is safe to plant, what kind of live stock is best adapted to its conditions, whose editor knows the people and is in close touch with them, who in discussion is just and fair and in public affairs will never attack the character or views of any man without according him a hearing in return. Many of these outside papers next spring will be advising the sowing of grass seeds which will not grow in the state at all, which have been tried over and over again and found wanting, grass seeds that belong to another country and other conditions; will advise against covering, will advise tree planting in the fall instead of the spring either because they do not know better or because it is to the interest of their advertisers to make sales.

The farmer cannot afford to spend his time in obtaining misleading information. No man can afford to take any paper into his family that is instilled with the spirit of malice, that is abusive, unfair, vindictive and unjust. He cannot afford to have the minds of his children imbued with these vices. He needs information of the world at large, of the world at home, of the doings of his county, of his church, of the state, the nation. He can, however, secure all these at small cost in a compact form. He needs, in addition, a paper devoted to his own life work and to his home life that will be a guide, philosopher and friend.

All these he can have at small expense, and they will add largely to his pleasure and profit. There is no need, in these days, of sifting out chaff from the wheat when the wheat is as cheap as chaff. There is no need of lumbering up his table with papers he does not care to read. Now is the time to discriminate, to test, to select with care in determining what his reading shall be during the next twelve months. If *Wallace's Farmer* is deemed worthy of a place it will be greatly pleased; if others are deemed more worthy, they should be taken instead.—*Wallace's Farmer*.

How To Become A Hero.

An old writer says that "courage is incompatible with the fear of death, but every villain fears death; therefore, no villain can be brave." This is good logic, provided the premises are sound, but as to that there may be some dispute. There have been some villains who have at least shown no fear of death. Nevertheless, the saying is, generally speaking, true. That other saying, "Thrice is he armed who hath his quarrel just," expresses a similar truth, for, "conscience doth make cowards of us all." Our author, conscious that exceptions might be taken to his declaration, provides against them in this way.

"He (the villain) may indeed possess the courage of a rat and fight with desperation when driven into a corner. If by craft and crime a successful adventurer should be enabled to usurp a kingdom and to command its legions, there may be moments when, like Richard on the field of Bosworth, Napoleon on the plains of Marengo, all must be staked—an awful crisis when if his throne be overturned his scaffold must be raised upon its ruins. Then, indeed, though the cloud of battle should lower on his hopes, while its iron hail is rattling around him, the greatest coward will hardly fly to insure that death which he can only escape by facing. Yet the glare of a courage thus elicited by danger, where fear conquers fear, is not to be compared to that calm sunshine which constantly cheers and illuminates the breast of him who builds his confidence on virtuous principle; it is rather the transient and evanescent lightning of the storm which derives half its lustre from the darkness that surrounds it."

This general truth that real courage is associated with honest principle, a true faith, and a clean conscience should not escape the attention of boys who, having their minds inflamed by stories of daring deeds, aspire to become heroes. If they would be courageous, they must be good. The most mischievous feature of the flaming literature prepared for boys is not the story itself, bad as that may be, but its essential falsity. There are other stories of crime and blood-shed as harrowing in their way as any contained in "false" literature, as, for example, some of the tragedies of Shakespeare, but the latter give a true picture of humanity, and such a picture a wholesome lesson.

It is the false character given to the heroes of dime novels that makes such books mischievous and misleading. As a general rule, if not always, the villain is a coward, nor can he be a villain for any length of time without becoming a liar and a hypocrite. There is nothing picturesque or attractive about him when he has been unmasked, nor can a truthful chronicler make a hero of him. Every rightly constituted boy ought to feel his pulse quicken when he is told or reads of deeds of daring; he ought to be inspired with the highest admiration for true courage and prepare himself to emulate true heroes. But he should very early in life be taught to discriminate between the real and the sham, and should be impressed through his own small experiences with the influence upon his courage of a clear or disturbed conscience. Thus he may be taught a substantial truth that if he would be brave he must be true; if a hero, he must be imbued with good principles.—*Baltimore Sun*.

Improved Culture for Sweet Peas.

I shall be expected to refer to rules for the culture of this flower. Those who failed last year had plenty of good company. Only one of our Springfield enthusiasts succeeded well. The causes of failure prevailed from one end of the country to the other. I bent all my energy to escaping the blight, and succeeded only in seeing my vines go up ten feet, blossoming in a scattering way after they were five feet high. There were two main causes, the first being that we had no frost to check a rapid start, and this was followed by an excess of rain during the growing season. One of the worst vices of the sweet pea is a tendency to rank vine and no bloom. Last year we had exactly the conditions to produce that. Make a plant work, if you want to increase the bloom. The root is the part of the plant that works, and the stiffer the soil the more wholesome exercise it gets. The sweet pea should not have a soft bed beneath it, as it induces a less hardy growth, indulges the root, and weakens it for its after-work. It favors a top growth beyond the power of the root to support. It stimulates growth at the expense of bloom. We have been following the trench system, which means that people have dug down and filled in with loose soil and fertilizer, and the very looseness of this bed under our seed and vines has been enough to make mischief. It should be made firm by treading down. We have weakened the plants by this soft treatment, and then have imprisoned them at the tenderest age four inches below the sunny surface of the ground and suffocated them still more by filling in the earth before they were at all hardened. Hence the blight. These directions are for those having a light loam, for people who have a clay loam ought to have good flowers without half trying.

We had better all of us fight shy of the trench method. I have a soft, spongy soil; I plough it in the fall, going over each furrow twice. I hollow out about two inches where my rows come, treading the soil, if I find it soft. This was done in the fall. In the spring I shall scratch lines an inch deep for my seed and cover an inch, and roll the soil above and along the side. If you have a clay loam, it will settle enough. I believe in spading in the fall for the purpose of mixing, but I should let the frost be my plough in the spring. I believe this "firming" of the ground and avoiding the other things that have smothered out tender vines will stop the blight. For ground moles, I resort to tar paper, setting pieces one by two feet in size into the ground every few feet to prevent their running lengthwise of the rows.

Plant your seeds as early as possible. If the sweet pea gave us no other pleasure, it bids us hail with delight that first premature spring day, after the frost is out of the warmest part of our garden, for that is the foreordained time to plant the seed, unless you continue to set apart Fast Day for this purpose. Plant the seed liberally enough to allow for various losses. I plant in double rows at the rate of one ounce to ten feet. Use more than that if it is cheap mixed seed. After all losses the plants should not stand nearer than three inches apart. Some of the devils that did not go into the swine went into the cutworm. If I open my mouth to boast that I do not have many of them, I shall surely have my pride humbled soon. I believe in going at him in the fall just as soon as the frost has spoiled things, put on a good dressing of salt, freeze him out by spading up as late as possible. The fall is a grand time for making a piece of ground very unpleasant for cutworms or their eggs.

I find virtue in bran and paris green; a pail of bran with a tablespoonful of the poison stirred in, sweetened a little, and sown on the surface or hoed in in the spring is a simple remedy. Diverting the worms by planting something of no value for them to feed on helps. Go out in the morning and kill them before breakfast.

The last two seasons have brought another pest. I call it a louse. It colonizes on the under side of foliage, near the base of the vine, and causes whitish translucent spots on the leaves. Go at it vigorously with tobacco tea or a force of water from the hose. I use the latter, but, with the excess of rain, it caused the vines to grow up at the expense of bloom last year. The balance of the rules for culture are simple and threadbare. Bush or trellis strongly, and give the vines room to ramble. Water freely after the blooming period comes, but not too much before. Run the rows north and south to give them both morning and afternoon sun on both sides. You are favorably situated here for early success in this flower. Almost anywhere near the sea coast they thrive.—*T. W. Hutchins, Indian Orchard, Me., before Massachusetts Horticultural Society*.

Caring for the Horse.

It is astonishing how unthoughtful some farmers, and even noted horsemen are, in caring for the "noble animal." I often notice when cleaning out the grain box they throw the cobs under the horses, where they are compelled to lie on them. My attention was in particular drawn to this cruel mode when a brag horseman was working for me. He threw the cobs under the horse. It is a good test to judge a farm hand by. If he does this, he will most likely use the milk stool to "so" the cow with.

There is another cruelty practiced on the faithful animal. When plow harness is on, with a crupper, he is taken to the watering trough, sometimes a low one, and the horse is expected to drink. The collar is pulled up against his windpipe and throat. It is difficult for him to swallow any length of time; he will hold up his head to get breath, and often the impatient and careless "workhand" will jerk him away, thinking he is through drinking. Some horses, without being choked off, will drink slowly, and stop

between drinks, but often they are jerked away before their thirst is quenched.

Again, when the harness is thrown on, the sharp cornered hames will strike the horse's back bone, and he will flinch; then he will get a kick to make him stand still. And just think of putting an iron bit in his mouth in zero weather! The horse knows what is coming, and will hold his head up out of reach. Then the careful (?) hand will warm the bit over the horse's back.

Keep an eye on a new hand, and see how he cares for the horses. If he does any of the foregoing things, admonish him; if caught at it a second time, "pay him off." It is not necessary to state how it should be done; a hint to the wise is sufficient.—*John Bennett, in Indiana Farmer*.

Household Training.

Much as the good workmen produced by the old apprenticeship system have been praised, no thoughtful man would care to turn the world back to such a wasteful system of teaching skill. It is true that in the absence of special schools for teaching trades, and also of the apprenticeship system, good workmen become scarce, those who learn trades picking them up slowly without guidance. But having destroyed the wasteful apprenticeship system, society now provides manual training or trade schools to take the place of that system. It has been proved beyond doubt that they can make as good workmen as apprentices ever became, and in much less time than the latter are required to serve. In the larger cities, the boys are tolerably well provided for. They may get a general education in the public or parochial schools, and then they may attend special schools where trades or professions are taught, or business colleges. Some, of course, are too poor to avail themselves of these advantages, but even for the poor who are required to go to work without special training, night schools are provided, and with such help they may advance themselves.

So much has been said of the higher education of women that there is a very general assumption that the position of a young girl with respect to education has been greatly improved during the last half hundred years. It has been improved so far as general education is concerned, and so far as the opening of some of the professional schools to women provides for their special training, but in one matter of the first importance the position of a young girl of the present day is not as favorable to the development of her powers as was that of her grandmother.

Elizabeth Bisland, writing in the *North American Review*, points out that, notwithstanding the recent enlargement of the field of work for women, the bulk of the sex devote their lives to the profession of housewifery, and to the duties of wife and motherhood. In the olden time, before the higher education absorbed their time and attention, they were trained to the discharge of these duties by their mothers as though they were apprentices. They did not acquire so much book knowledge as the girls of today, but they learned, what was of more importance to them and to the community, "things, rather than words." No one will begrudge them the higher general education they now receive, but they need also special training. If it can be given to them by their mothers, well and good, but if not, then they should have special schools of housewifery, just as the boys have special schools for the trades and professions.

Apprenticeship to trades passed away from the larger cities (it still lingers in country places) with the specialization of branches of trade, the general introduction of machinery, and the changed conditions of living, due to a great expansion of manufacturing establishments. It would be impossible to restore it, even though it should be thought desirable to do so, but in place of it has been built up to some extent a system of special school training. When the boys were apprentices, the girls were being taught by their mothers all the various household arts and sciences. They were fitted to become wives and mothers, not merely by being taught to sew and cook, but by being instructed in household hygiene, the care of children, and the economic administration of affairs.

But time has changed the conditions under which household work is done. Innumerable things that used to be produced at home are now bought from the factory; there is more leisure for education, and the girls receive a better general education. But their destiny remains the same. Nine-tenths of them must look forward to entering the profession of a housewife some day, and for this they should have special training, just as the boys are given special training for the trade or professions they expect to enter. As much of this training as may be should be given at home, but it can be supplemented by school work. There is no reason to limit the ambitions of girls or shut them out of other professional schools. If they want to be doctors or lawyers, they are obliged to enter medical or law schools. If they want to or expect to become housewives, they should enter a school for housewives—that of their own homes or an organized institution. Their general education has done for them no more than it has done for the boys. It has trained their faculties, cultivated their tastes, fitted them for special studies; and they should follow the example of their brothers by preparing themselves in some way for the special life-work that lies before them.—*Baltimore Sun*.

Calendar.

1896-97.
Fall Term—September 10th to December 19th.
Winter Term—January 5th to March 27th.
Spring Term—March 30th to June 10th.
June 10th, Commencement.
1897-98.
Fall Term—September 9th to December 18th.

To School Officers.

The College Loan Commissioner has funds now to invest in school district bonds at par. The law requires that no bonds be sold at par or less without being first offered to the State School Fund Commissioner and the State Agricultural College. Address

GENERAL LOCAL NOTES.

Mrs. Vincent, wife of S. R. Vincent, visited College last week.

R. B. Spillman, Jr., was a welcome visitor Saturday afternoon.

Ex-Regent Bulkley writes of continued interest in College affairs.

Ex-Regent Forsyth sends greeting to all his old friends among the Faculty.

Mr. Haney was accompanied by his father at the Saturday afternoon lecture.

Miss Loleta Sparr of Ellsworth visited College last week, with Miss Anna Engel, '97.

Pumping machinery to the value of about \$400 is received at the shops for testing.

Four eight-light motors are in process of construction by the students in the iron shop.

T. E. Thompson, Second-year, went to Topeka last week to take a place as attendant in the asylum.

Miss Thompson from Alma visited College Saturday with her cousin, Nell Henderson, Second-year.

The grounds about the house of Foreman Sexton are laid out and partially planted from designs made by post-graduate students.

Mrs. Merrill of Leavenworth was at College this morning. She is in Manhattan as an agent for the Home of the Friendless in Leavenworth.

Assistant Chemist Breese was kept from his post several days last week by the gripe. R. W. Clothier, Fourth-year, assisted in class work.

The mulching has been removed from the strawberry beds, and the vines thoroughly sprayed. With favorable weather, a big crop of berries of many sorts will be gathered.

Prof. Hood is planning for the completion of the system of electric lighting for the main building. Lights will be placed in the halls, cloak rooms, reception room, and closets.

Several of the lower class girls visited the Webster and Hamilton Societies Saturday evening. It is said that there was a general scramble after Society—for what it is not stated.

Regent Hoffman's letter to the Topeka State Journal and Regent Daughters' letter to the Topeka Capital present two sides to the College re-organization. The INDUSTRIALIST will record facts only without interpretations.

Cauliflower plants from the propagating pits occupy a quarter of an acre in the gardens. Henderson's Snowball is the variety used, it being an extra early sort which will mature, it is hoped, before the hot, dry weather.

President Fairchild will address the Young Women's Christian Association on Saturday next at the close of the fifth hour, in room S. Every girl in college is most cordially invited to the Y. W. C. A. meetings.

The Horticultural Department is receiving stock for the extension of the forestry plantations, chief among it being seeds of several valuable conifers, which has been sown in seed beds under screens, some 500 feet of screens being devoted to this use.

Prof. Cowgill, editor of the Kansas Farmer, ran up for a day last week to see how every body looked after the "late unpleasantness." There is a grain of comfort for the decapitated in the Professor's statement that he has never regretted leaving his chair at the College for work in other fields.

The shop has just made for the Department of Industrial Art a set of models not to be obtained from dealers. They consist of large wooden blocks showing intersections of cone with cone, of the sphere with cone, of the cylinder with the cone, etc. They form an interesting study to the student in geometrical drawing.

The fine weather and the fact that Secretary Graham was to give the afternoon chapel lecture were undoubtedly two of the causes of the number of visitors present. Some of them were Mr. and Mrs. Waugh, Mrs. Avery, Mrs. Ewalt, Mrs. Gates, and Misses Mary Bower, Mary and Georgia Brooks, Olive Drake, Ada Ingman, Pearl Phillips, and Mr. Jacobson from Republic Co. Those of the faculty present were Pres. Fairchild, Profs. Olin, Lantz, Willard, Georgeson, and Walters.

Some of the students, not knowing Secretary Graham's reputation as an exceptionally interesting speaker, came to Chapel Saturday afternoon with their newspapers, expecting to use them should they find that silent, peaceful, dreamy sensation lulling them into the quiet, happy mood; but before they had time to get their literature in hand, the Secretary had the attention of everyone present and held them spell-

bound for an exceedingly short hour, lecturing on "Bicycles" in his unique and humorous manner. He told of the past and present stages and the effect on language, literature, and the people in general, with experiences which came home so forcibly to all riders, "would-be's" included, that every few words were sandwiched with a most hearty applause. Just such a lecture is sure to be accompanied by an attentive audience, even on Saturday afternoon.

BASE BALL.

K. A. C., 12; Fort Riley, 4.

K. A. C. is playing good ball, or better ball, at least, than Fort Riley, having won both the games played with that club. The game at the Fort on the 10th inst. was won by the narrow margin of one run, —4 to 3,—the army boys having Crooch in the box, who is considered a better pitcher than Hayward, the twirler in the game of Saturday, the 17th, on the home grounds.

Saturday afternoon was perfect, the crowd large and good-natured, and the players appeared in their practice to be in fine fettle. The game was well-nigh featureless, however, and was interesting to the "fans" only because it was the first of the season. Errors abounded, K. A. C. leading with thirteen against the Fort's seven. The outfield had little to do, but four balls being batted to them, Menke in center having no part in the game except to look on and see it won in a walk.

FIRST INNING.

Considine hit to Poston and was thrown out on first. Fann struck out. Mearns batted a short fly to Cheadle, who misjudged it. Hayward struck out. H. Wagner was struck by pitched ball. Noble hit short fly to Mearns for a base, but Mearns fielded the ball in time to catch Wagner at second. Dial sent a skipping grounder to Davis, and by good sprinting reached second. Baker threw to home plate in an effort to catch Noble, and Dial rested on third. Ashbrook drove to Mearns, and Dial scored. Cheadle hit low to right, and Fritz let the ball get past him. Poston drove sharply past Baker, scoring Ashbrook and Cheadle, and stopped on second. Menke's grounder was fielded by Baker, who caught the runner at first. G. Wagner hit to Hayward and was retired at first, leaving Poston on third. Four runs.

SECOND INNING.

Baker went out on a high foul to G. Wagner. Tendell hit to Pitcher Wagner and was thrown out. Fritz drove a hot one to Poston, who muffed it, and then threw too slow to catch the runner, who died on the base, however, on Davis's pop-up to pitcher.

Green hit to Hayward and was thrown out at first. H. Wagner's fly to Mearns was held. Noble hit to Baker and was thrown out at first.

THIRD INNING.

Both sides were retired in one, two, three order. McCaffery struck out. Considine hit a wide one to H. Wagner, who untangled himself in time to catch the runner on the first bag. Fann fanned.

Dial hit to Tendell, and was thrown out. Ashbrook's low fly to center was properly cared for by Mearns. Cheadle hit down the path to Fann.

FOURTH INNING.

Mearns, after driving a low fly to and past Green, managed, by cutting first base twenty feet when the umpire's back was turned, to reach third. Hayward's high one just suited Poston. Baker hit to pitcher, who, instead of throwing to first, attempted to catch Mearns napping on third. Ashbrook muffed the ball, when Mearns skurried homeward, and scored, Ashbrook's thrown ball striking him in the back when he was within ten feet of the plate. Tendell drove to Poston, who threw to Dial in time to catch Baker. With Fritz at bat, Tendell stole second on Dial's muff of G. Wagner's throw. Fritz hit to pitcher, who threw wide to Noble, who could not field the ball except by leaving the bag uncovered. Noble threw home in time to catch Tendell, who ran out of the path around Wagner, but was declared safe. Davis hit to pitcher and was thrown out.

Poston hit sharply to Considine and stole second. Menke hit an easy grounder which both Fann and Considine fumbled, advancing Poston to third. G. Wagner went out on a foul fly to Davis. Green hit to Tendell, who overthrew first, and Poston, Menke, and Green scored on the error. H. Wagner lined one to Mearns for a base and stole second. Noble hit sharply past Fritz, but in an apparent effort to "get even" with Mearns, cut first base and made the circuit of the diamond only to be called out. Wagner scored in the meantime. Dial dropped the ball in McCaffery's hands and the side was retired with four more runs to their credit.

FIFTH INNING.

McCaffery out, hit by batted ball. Considine gave Green a fly, which he muffed, and the runner reached first and stole second, where he died, Fann and Mearns going out on high hits to Ashbrook.

Ashbrook flew out to McCaffery. Cheadle struck out. Poston out on foul fly to Davis.

SIXTH INNING.

Hayward struck out. Baker landed one back of Poston. Tendell hit hard and wide to Dial, who made a pretty run and stop and quick throw to Noble, catching the runner. Fritz took the stick, and the performance was duplicated.

Menke hit to Considine, who let the ball get away, and stole second. G. Wagner got a base on balls. Green's fly to left was caught by McCaffery. H. Wagner hit to Tendell and reached third on Tendell's overthrow to Fann, while Menke and Wagner scored.

Noble gave Mearns an easy fly. Dial made a two-base hit, scoring H. Wagner. Ashbrook presented Fritz with a high one, and Dial stopped at third. Three runs added to the score.

SEVENTH INNING.

Davis and Tendell went out on fly balls to Ashbrook, and Fritz on a foul fly to G. Wagner.

Cheadle struck out. Poston's fly was caught by McCaffery, and Menke's infield fly by Considine.

EIGHTH INNING.

Fann hit hard to Ashbrook, who made a good pick-up and threw runner out. Mearns's fly was taken care of by Poston. Hayward hit to Green, who was too slow to make connection, and fumbled, allowing Hayward to reach second. Baker batted to Ashbrook and was thrown out.

G. Wagner was presented with a base on balls, and not satisfied with that, stole second. Green was given a base on balls. H. Wagner hit to Hayward, Noble to Considine, Dial to Tendell, and all were thrown out at first base. G. Wagner scored, making a total of twelve runs.

NINTH INNING.

Tendell hit warmly to Ashbrook, who fumbled and threw low to Noble. Fritz gave Poston one which he dropped, but Dial picked up the sphere and threw to Noble in time to retire the runner, had Noble held the ball. Davis placed a swift one between Ashbrook and Poston, scoring Tendell and Fritz. McCaffery hit to Poston and was thrown out. Considine struck out. Fann struck out.

The last half was not played.

THE SCORE.

K. S. A. C.	A. B. R.	1 B.	S. H.	P. O.	A.	E.
H. Wagner, p.....	4	2	1	1	2	3
Noble, 1 b.....	5	1	2	0	9	1
Dial, 2 b.....	5	1	2	0	1	3
Ashbrook, 3 b.....	4	1	1	0	4	2
Cheadle, r f.....	4	1	1	0	9	0
Poston, s s.....	4	1	2	0	2	3
Menke, c f.....	4	2	0	0	9	0
G. Wagner, c.....	2	2	0	0	0	2
Green, 1 f.....	3	1	0	0	0	3
Fort Riley.	A. B. R.	1 B.	S. H.	P. O.	A.	E.
Considine, 2 b.....	5	0	0	0	2	0
Fann, 1 b.....	5	0	0	0	10	0
Mearns, c f.....	4	1	1	0	3	1
Hayward, p.....	4	0	1	0	0	2
Baker, 3 b.....	4	2	1	0	0	2
Tendell, s s.....	4	0	0	0	0	2
Fritz, r f.....	4	1	0	0	2	0
Davis, c.....	4	0	1	0	4	0
McCaffery, 1 f.....	4	0	0	0	3	0

K. S. A. C.	1	2	3	4	5	6	7	8	9
Fort Riley.....	4	0	0	4	1	3	0	0	x-12
Bases on balls—Hayward, 3.	0	0	0	2	0	0	0	0	2-4
Struck out—Wagner, 7; Hayward, 2.									
Hit by pitched ball—H. Wagner.									
Left on bases—K. S. A. C., 3; Fort Riley, 6.									
Two-base hit—Dial.									
Umpire—Higinbotham.									

NOTES.

Washburn College Club will be here on Saturday next, when a good game may be expected.

When you attend the next game, don't forget to take a quarter with you. The club is running behind. It costs money to bring a visiting club here, and the home team must pay all expenses.

Wagner is doing good work in the box. While not speedy, he has excellent command of the ball, and shoots some deceptive curves over and around the plate. He is cool and deliberate, too, in an emergency.

Dial's clever work in picking up grounders, coupled with his quick, easy, and accurate throwing, won for him many compliments. "He is professional material" is a common expression of all who see him at work.

In reporting the game played at the Fort, a week ago, it was incorrectly stated in these columns that Wagner gave five men bases on balls, and Crooch one. The figures should have been transposed, and Crooch charged with the five bases on balls and Wagner with one.

It is to be hoped that K. A. C. will gain a reputation for fair ball-playing. There is nothing to be gained and much to be lost by tricky tactics. Amateur sport ceases to be such when players stoop to dodges which should not be tolerated, as they sometimes are, in professionals. Let us win or lose on our merits, and trust to the vigilance and honesty of the umpire for just decisions.

Accessions to the Library.

Donated by O. E. Morse, Mound City, Kansas:—

Military Commission to Europe, 1855-56.
Coast Survey, 1854, 1859.
Commercial Relations, 1859, 1860, 1873.
Connecticut State Agricultural Society, 1854.
Report on the Finance, 1858-9, 1859-60.
Lake Superior Copper Lands, 1850, Foster & Whitney.
Commerce and Navigation, 1849-50, 1860.
Bureau of Animal Industry, 1884.
Patent Office Report, 1859, Vols. 1 and 2.
Abstracted Indian Bonds, 1861.
Covode Investigations, 1860.
Message and Documents, 1859-60.
Report of Select Committee of Five upon Duties and Imports, etc., 1861.
Sutro Tunnel, 1872.
Geological Survey of Missouri, 1855. [Lands II.]
Maps, Stanbury's Report upon the Survey of Utah, 1849-50.

Purchased:—

Grasses of North America, Beal. Vols. 1 & 2.
Free Trade and Protection, Fawcett.
Ptomaines and other Animal Alkaloids, Farquharson.
Milk, its Nature and Composition, Aikman.

GRADUATES AND FORMER STUDENTS.

Olive Drake, Second-year in 1893-4, was at College on Friday.

C. A. Kimball, '93, of Junction City, visited College Saturday.

F. M. Jeffrey, '81, is still prospering in Cripple Creek, Colo.

G. J. Vanzile, '90, Attorney at Law, writes from Springfield, Ill.

G. L. Melton, '93, is in the Loan and Insurance business at Winfield.

W. J. Burtis, '87, writes from Fredonia, Kans., in view of the recent events.

T. L. Jones, '96, and L. W. Hayes, '96, are members of the Asylum Band at Topeka.

J. Poole, '96, was in town on Saturday looking fully the genuine farmer he is.

C. D. Adams, '95, is taking post-graduate work after a year of teaching at Perry.

R. S. Reed, '92, has moved to Emporia, presumably to attend the State Normal School.

D. G. Robertson, '86, hangs out his law shingle at Suite 15, 106 LaSalle Court, Chicago.

C. F. Doane, '96, is still swinging the editorial shears on the Milwaukee, Wis., Journal.

Fannie J. Cress, '94, writes that her family have moved from Steubenville to Dayton, O.

Prof. F. A. Waugh, '91, sends hearty inquiries from Denter, Md., where he is spending a fortnight.

J. W. Berry, '83, writes from Jewell City, where he is secretary of the "Jewell Lumber Company."

C. A. Murphy, '87, hopes to leave Kingman for a city in the northern part of the State next year.

C. D. Pratt, '85, is Texas representative of the Lucas Paint Company, making headquarters at Dallas.

Rev. J. E. Thackrey, '93, sends greetings for himself and Mrs. Eva L. Palmer-Thackrey, '96, from Greencastle, Ind.

F. O. Sisson, '86, sends a warm greeting from the South Side Academy, 5418 Greenwood Ave., Chicago, where he is Principal.

J. J. Herring, student in 1887, writes from Trinidad, Colo., of continued interest in the College, though he claims another Alma Mater.

J. A. Rokes, '93, remembers all old friends from his home in Onaga, but goes to Holton, Kans., to read law in the office of Crane & Woodburn.

Lieut. E. A. Helmick, with the class of '83, writes from Ft. Reno, I. T., wishing that he and Mrs. Helmick (Lizzie Clark in student days) may be at the next Commencement.

G. C. Peck, '84, of Junction City, visited his Alma Mater last Thursday. He has taken the civil service examination with the hope of getting a place in the Government printing office at Washington.

Original Researches in Physics presented before the Royal Physical Society of Germany by E. F. Nichols '88, are said by competent German critics to possess great merit. They will soon appear in English.

H. W. Stone, '92, writing from Portland, Oregon, where he is General Secretary of the Y. M. C. A., states that most of his time is spent in cleaning up old debts of the Association and raising money for a permanent home for the young men of Portland.

F. A. Dawley, a graduate of the Agricultural College in 1895, and for the past winter a successful teacher in the Osborne County schools, made us a short call Monday morning. He is now devoting his time to farming and cattle feeding, and was at that time on an outlook for stock.—*Russell Reformer*.

W. A. Cavenaugh, G. W. Finley, and F. E. Uhl, of the Class of '95, have just received from the Adjutant General's Office, at Washington, D. C., notice that their names have "been inserted in the Army Register for the current year," under a registration requiring publication of the names of "the three most distinguished students in military science and tactics" of the graduating class.

COLLEGE ORGANIZATIONS.

Student editors.—Philip Fox, Gertrude Lyman, R. J. Peck.

Y. M. C. A.—President, G. D. Hulett, '98; Vice-President, E. O. Farrar; Recording Secretary, C. R. Nelson, 1900; Corresponding Secretary, J. M. Pierce, '98; Treasurer, C. H. Lehmkuhl, '99.

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Ionian Society.—President, Margaret Correll; Vice-President, Ary Johnson; Recording Secretary, Phoebe Smith; Corresponding Secretary, Grace Stokes; Treasurer, Hilda Olson; Critic, Gertrude Lyman; Marshal, Maude Currie. Meets every Saturday afternoon in North Society hall.

Webster Society.—President, Mark Wheeler; Vice-President, T. W. Allison; Recording Secretary, J. W. Bower; Corresponding Secretary, C. B. White; Treasurer, H. P. Neilson; Critic, W. T. Pope; Marshal, T. C. Meibert; Board of Directors, Schuyler Nichols, J. A. Conover, George Martinson, L. E. Potter, H. R. Webster. Meets every Saturday evening in South Society Hall.

Hamilton Society.—President, O. E. Noble; Vice-President, G. F. Farley; Recording Secretary, O. R. Smith; Corresponding Secretary, W. M. Poole; Treasurer, A. J. Leonard; Critic, C. B. Ingman; Marshal, Wm. Anderson; Board of Directors, V. Maelzer, M. C. Adams, L. A. Fitz, H. W. R. gler, M. W. Sanderson. Meets Saturday evening in North Society Hall.

April 17.

In the absence of President and Vice-President the Hamiltons were called to order by Recording Secretary, O. R. Smith. L. G. Hepworth was called to the chair. The roll call showed that many were yet to come, but the chairs were all occupied by eight o'clock. Prayer, F. O. Woestemeyer. President Noble and M. C. Adams, one of the Board were installed. President Noble was called upon for an inaugural to which he responded in a few well chosen words. He thanked the Society for the position and asked their help in this term's work, he assured them that there would be no radical change in the policy of the Society, but hoped to keep it ever moving onward. L. G. Hepworth in his valedictory commended the Society on the work of the Winter Term and assured them that he would do all he could to keep things lively this term. A. A. Paige and H. C. Haffner were initiated. The program was opened with music by R. J. Peck, a Webster whose services had been secured by F. O. Woestemeyer, the hearty encore showed that the Society appreciated the music very highly. The debate on the question, Is co-education the best method in Colleges, was affirmed by A. C. Smith and E. O. Farrar. R. M. Philbrook and M. C. Adams denied the argument of the affirmative. There were many good points brought out on each side. The Society decided in favor of the negative. During recess the Second-year girls and Mrs. Kedzie were welcomed in. By request of the Society Clara Long gave an excellent piano solo. An interesting recitation was given by W. E. Hardy. A. Moyer read a biographical sketch of Washington Higbee. Wm. Anderson ended the program with an interesting number of the Recorder. Motto:—

To hide true worth from public view
Is burying diamonds in their mine
All is not gold that shines, 'tis true;
But all that is gold ought to shine.

Report of Critic. The honorary members present were called upon for a speech. R. J. Barnett, I. Jones, and Mrs. Kedzie each gave a short talk in which they expressed their pleasure at being present and told of the growth and development of the Society. The remainder of the evening was spent in transacting the business of the Society. W. P.

April 17.

President Wheeler called the Websters to order and Mr. Haney led the Society in prayer. Mr. A. E. Robe was elected a member and initiated. An interesting debate was had on the subject, "Resolved, that Lord Bacon was the real author of the works attributed to Shakespeare." Mr. Ireland and Mr. Nelson upheld the affirmative, arguing that Shakespeare was a man of too poor education to write the works attributed to him. On the negative Mr. Pierce and Mr. McKee showed why the works could not be Bacon's. The affirmative won the question. The Society next listened to a violin solo by Mr. George Doll. Mr. Shelton entertained us with a selection from Charles Dudley Warner's "My Summer in a Garden." The Society had been on the quiver all evening because of the presence of a bevy of young ladies under the chaperonage of Mrs. Kedzie. Mrs. Kedzie being asked to speak, gave us a vivid description of Shakespeare's home on the Avon. Miss Barnard then honored the request of the Society for music with a vocal solo. The ladies were given a vote of thanks for their kindness. After recess Mr. Ross Long presented a well written number of the Reporter, taking for his motto: "Sloth is No Friend to Progress." On account of the lateness of the hour the rest of the program was passed and the Society went into business session. C. W. B.

April 10th.

The afternoon of April 10th Ionian Hall was filled with Ionians and their friends. Society was opened in the usual order, and as our program was to be a musical one, the session was of particular interest to all. The first number was a vocal solo by Miss Perry, accompanied by her sister, Miss Alice. Miss Bowen, a former Ionian, favored us with a charming piano solo, and then Miss Hood read a most excellent number of the Oracle which was pronounced as the best paper we have had this past year. The next in order was a pretty instrumental piece by Miss Alice Perry. Miss Pearl Cunningham, in her usual bright manner, gave a reading which was enjoyed by all. After Miss Stacy Stokes played one of her "Variations," the Society was pleased to hear Miss Gertrude Lyman's and Miss Pfuetze's vocal duet. We always glad when Miss McHugh gives any of her readings for us, and this afternoon was no exception to the rule. Miss Rhodes played "The Revel of the Witches." After this Miss Lyman, another former Ionian, sang for us, as only she can sing. This closed our program, and after new business was disposed of, the Society adjourned. G. S.

April 17th.

The Ionians, on account of "house-cleaning time," in the society room, met in room "I" where the session was opened. Just as the Secretary was preparing to call the roll, an Ionian, much out of breath, rushed in and informed us that after much hard labor, the Hamiltons had made order out of chaos and Ionian Hall was now ready for occupancy. Upon hearing this the Ionians immediately repaired to their beloved Hall and expressed their delight in regard to the neatly carpeted room. As many duties were pressing, it was decided to hold a business session only. Just before meeting in a closed session, Messrs. Rogler and Pottorf favored the Society with a violin duet, but declined to respond to an encore. After many topics were discussed, the Society adjourned to meet in two weeks. G. S. □

Small Fruit Farms.

In many States the small fruit farms are becoming noticeable features, and real paying ones also. Fruit of fine quality is always in good demand, and rarely ever do the prices fall below the profitable margin. Those who start in the industry should know the varieties that will succeed best in their immediate neighborhood. Then the market demand, as well as the kinds that are the greatest in demand. Every local market has certain fruits that are always salable and that are always sought after, and purchasers will pass by fine-looking fruit in search of the particular variety they wish.

The improvements in fruits is keeping pace with the progress of the age, and the public demand increases even more than does the annually increasing supply.

The fruit farmer must, however, have experience and knowledge of the business. He should know what the proper care and cultivation of the trees, vines, bushes and plants of fruits is.

The practical and quite inexpensive evaporating methods or machines offered excellent opportunity to turn the products of an abnormal yield into a shape for future sales. This method of utilizing the product in a time of glut will prevent what would otherwise be a serious loss to the fruit farmer. The small fruit farmer could also turn his attention to vegetables, which could be planted between the rows of the fruit trees and bushes, and the cultivation of the vegetables would also be beneficial to the orchard as well.

Liberal manuring must follow, however, as all vegetables are comparatively rank feeders. Small fruits require good rich soils and the fertilizing elements should be annually renewed and forked well into the soil close up around the bushes and trees. The insect pests are numerous among all kinds of fruit plants and trees, and it can be truly said constant vigilance will be the price of every crop. The many remedies that the experiment stations and other intelligent sources have discovered that are quite perfect insecticides render it, however, merely necessary to make timely applications to quite effectually complete the riddance of insect troubles.

The man who commences the small fruit farm with an idea that all he has to do is to select the best varieties and put them in and after that to have a lazy man's picnic will be only one season finding his mistake.

He will find he cannot neglect the business or make it incidental to some other. He will also find that it will require his personal attention, and that there will be very many details that cannot be properly intrusted to a second party, no matter how trustworthy. Those who will go into small fruit farming, and be energetic, ambitious, enterprising and make an intelligent study of the occupation—in fact, train themselves to become experts or true specialists, will make the business an exceedingly profitable one. The occupation will soon develop a real infatuation for the small fruit farmer, and he will enjoy budding, grafting, and other interesting things connected with it.

The only way to become a successful small fruit farmer is to follow these suggestions and go in with a will to win and work your way to the top.—*Baltimore Sun*.

Free Delivery of Mail.

If the farmers of this country want free delivery of mail, they have got to demand it of their representatives in Congress, and show that they are determined to have their share of Uncle Sam's patronage in this particular. Why it is that old gentleman should be partial to towns-people in this matter we could never understand. It seems that his public servants are ever on the alert to facilitate the mailing business in cities, but the country man must help himself. Just because a man does a great big business that calls for lots of letters is no reason why public money should be spent to carry letters to his office any more than to the homes of the rural resident who looks for but a letter or two each week, and which is always very important to him. The more letters a man gets the more money there is in them, and the better able he is to have them carried to him. If city people want free mail delivery, it's all right for them to have it, but they shouldn't expect the country man to help pay for it and not grumble. This may be a free country, but we don't all stand on an equal footing yet.—*Agricultural Epitome*.

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COLLEGE IDEALS.

BY PRES. GEO. T. FAIRCHILD.

THE characteristics of college life anywhere reveal to some degree the ideals of those whose work enters into that life. Students, authorities, and the patronizing public all wield an influence in establishing the ideals toward which any college is working. These influences may blend harmoniously, giving unity and energy to the upbuilding of the institution, or they may so oppose and neutralize each other as to retard growth, if not to destroy the whole. That the college ideal is not the same for these three classes of persons is evident upon testing the different points of view.

FOR STUDENTS.

The college is for them a second home during the years of most apparent growth in all directions. Between the ages of sixteen and twenty-one every youth finds his introduction to the world of nature and of people, physically, intellectually, and morally. His interpretation of natural phenomena—earth, vegetation, animal life—into mutual relations and forces begins to have importance. He finds himself in comparison with his companions. Self-assertion is natural, necessary, and inevitable. Companionship becomes friendship, attachment. The force of masses is appreciated and cultivated. The restraints of custom and law are more burdensome and less binding than before or after this period. All the battles of the ages for individual liberty are fought over again in study, and transferred in some form to the present stage of action. The grand debates of legislative history are repeated and imitated and applied in our times. Convictions upon creation, life, immortality, and personal responsibility to omnipotence are unsettled and re-settled.

To students, naturally, the college ideal is activity, exertion, freedom of thought and action. Self-control is less emphasized than self-assertion. Yet they associate all this finding of self with college hall, college classes, and college faculties in a way to give a genuine affection for it all; and college means to them their greater self when they step out into the world. Later they may cherish in recollection the particular kindness in word or deed of some college officer, or the particular spot associated with some tender sentiment; but at college the student's ideal is largely of the student's making, and represents his growth. To him, the college means agitation, varying in outcome with the peculiarities of his class or clique.

TO THE AUTHORITIES.

The college ideal has more definite form as a training place for youth. A faculty is likely to consider the course of study, the classification, the classroom order, the rules and regulations, and the direct control of manners and morals of chief importance. Realizing most fully the import of these years of coming to discretion through indiscretion, and feeling most emphatically the task of standing *in loco parentis*, the college professors are constrained to put the ideal of their college in orderly, studious, deferential development of coming men and women. This is seen in definitions explicit, rules precise, judgment exacting, manners formal, and prizes for definite performance. The very examinations are likely to test exact performance of tasks. Control may seem more important than self control and directions more emphatic than influence. The great leaders in college education, to be sure, have always found their ideal in the developing soul of youth rather than in acts, but the natural drift of mere teachers elevates the performance. Another extreme in faculty ideals is mere scholarship, mere acquisition of facts, and methods of treating facts, rather than character. Still another is the exaltation of new facts into the place of originality of thought and individuality of life. The genuine ideal makes the personality of the students, their individual nobility, both the aim of the college and the measure of its success.

Boards of control have their ideals also. These are likely to have most prominent the outcome of training in particular directions. The fostering of certain trades and professions, and the propagation of definite opinions on professional, social, political, or religious subjects have given rise to more endowments than any other motive. Trustees are very likely to be men chosen for their devotion to an art, a creed, or a policy. Their ideal of the college is a bulwark of defense and a fort of offense in the world of controversy. What views shall be taught, what

texts shall be used, and what safe guide shall lead the youthful mind in these straight paths decide the ideal for the average board of control.

TO THE PATRONS.

The college ideal is a safe place for youth in the critical period of life. When the boy or girl outgrows parental restraint, the college is supposed to be the making of either. Most parents, if without college experience, inquire anxiously after the ways and means of control and the particular restraints depended upon for order. Many settle in their own minds the particular object to be secured in the college training, and found their ideals upon that. A few borrow their ideal from their children at college, and find it varying with each year's growth of these exponents of college life. More found their ideal upon opposition to current fads and exuberance of spirits in crowds of college students. Only the most thoughtful seek their ideal in the developing manhood and womanhood of their children, remembering that growth in College, as everywhere else, is life.

THE RESULTANT

Of all these ideals ought to develop the ideal college life for each generation; for all these elements of good—exertion, order, opinion, and restraint must be combined in the ideal life of youth which college walls should secure to our children. The monastery and abbey furnished the restraint and the order; the modern university and professional schools furnish the exertion and the opinions; the true college ideal will blend them all in a body of earnest lovers of young men and women for the possibilities in them, thoroughly equipped with knowledge, enthusiasm, and experience. Such a faculty will gain the facilities for study in library, apparatus, and halls. But if all these should be destroyed, the strength of the ideal will remain and perpetuate itself through generations of noble men and women devoted to their work.

THE DISGRACE OF BEING SICK.

BY JULIA R. PEARCE.

THE disgrace of someone; it may not be you. But someone has blundered, either through ignorance or carelessness, if you are not strong and well, perfect in limb and feature, as God meant you should be. If you have weak eyes, whose fault is it? Probably your own; possibly the fault of those who had your childhood in guidance. Are you a dyspeptic? Again, whose fault is it? This time it may be your great-great grand-parents', but someone is to blame. Someone has had no control over his appetite, and you suffer. Have you had to go through a siege of scarlet fever, diphtheria, small-pox? Now, this can only be somebody's carelessness. Someone, utterly careless of the well-being of others, has selfishly thought only of his own comfort and gone catering to his own wishes, mingled with his fellows, carrying from the sick-room the germs of disease in his clothes, brushed against them in the jostling crowd, dealing suffering, perhaps death, to this one and to that one, of course missing many, and gone gaily on his way, and you have the measles or scarlet fever or consumption.

But, someone says, the air is pregnant with the germs of disease, and often one takes such diseases without what is usually called "being exposed." Now, in this case you can't lay it to the careless passerby. But if you go back to first causes, you will find, I think, that it is "all on account of somebody." If you are strong and vigorous, every organ in health and throbbing with vitality, the germs to be found in the air will not trouble you. Your system will scorn such intruders and throw them off with little trouble. If the air is so full of disease germs as to endanger a healthy person, then it is time to move yourself; go somewhere else. Such plague-infected places are hard to find; no need of your staying there. "How about colds?" I believe half the colds could be avoided by proper bathing at the proper time. Many colds come from carelessness in dress or exposure to bad weather, or passing in and out from over-heated rooms to extreme cold air and back again (someone's poor management again, you see), and so on through the line of ailments.

Some seem to think it interesting to pose as an invalid, to be delicate; but if they would stop to think that every physical weakness was to the shame of somebody, they wouldn't be so anxious to display their infirmities. If not for their own sake, they wouldn't want to expose the folly of parents or grand-parents, but would try to build up by every care the weakened organism that had fallen to their lot.

KANSAS LITERARY FOLK.

The Meeting of the Kansas Academy of Language and Literature.

The meeting of the Kansas Academy of Language and Literature afforded much pleasure to the people of Manhattan and vicinity, who testified to their appreciation of the society's work by good attendance at the various sessions.

The program of addresses and essays was of more than usual interest, and brought forth much lively discussion.

Overture—Fliesende Quelle. - - - College Orchestra.
Invocation - - - Rev. Edward Gill.
Address of Welcome - - - President Geo. T. Fairchild.
Vocal Solo—Good Bye Sweet Day (*Bannah*). - - Mrs. H. Ewalt.
President's Address - - - W. A. Carruth, Ph. D., Lawrence.
Piano Solo—Rhapsodie Hongroise (*List*). - - Miss Louise Hessin.
Business, Announcements, Election of Members, etc.

Expression—
Piano Solo—Minuet (*Paderewski*). - - Mrs. M. M. Cooper.
Art - - - Anna Angell, Leavenworth.
The Ethical Element in Art - - - William Bishop, Salina.
Music as a Language - - - Mrs. Gaston Boyd, Newton.
Vocal Duet—Trust Her Not (*Balfe*). - -
Mrs. J. L. Carney and Mrs. H. Ewalt.

Dialect Notes - - - W. H. Carruth, Lawrence.
Transmission of Literature - A. M. Wilcox, Ph. D., Lawrence.
Piano Duet—Revil Du Lion (*DeKontski*). - -
Misses L. M. Helder and May Bowen.

Character Study in Recent History and Fiction - - -
F. H. White, Manhattan.

The Lawyer in Literature - - - C. C. Coleman, Clay Centre.
The Biographical Age - - - Caroline L. Maddocks, Topeka.

Vocal Solo—Above in Her Chamber (*Eichberg*) with violin obbligato, - - - Mrs. T. E. Will and B. R. Brown.
A Poem—Ecstasy, - - - Florence L. Snow, Neosho Falls.

Original Story - - - Mrs. C. F. Wilder.
Vocal Solo—My Lady's Bower (*Temple*). - - Miss Mary Lyman.

Kansas Bibliography - - - Carrie M. Watson, Lawrence.
Kansas Literary Clubs - - - A. G. Canfield, Lawrence.

Symposium and Discussion—Kansas Literature.
Piano (six hands)—March Triumphant (*Holst*). - -
Misses Amanda Culp, L. M. Helder, and May Bowen.

Reports of Committees, Election of Officers, etc.

At the banquet in Society Hall on Friday evening, tendered by the Faculty to the Academy, a hundred covers were laid. The culinary feature, a most important one, was in charge of the College cooking class under the direction of Mrs. Kedzie.

MENU

They're welcome all; let 'em have kind admittance.
Music make them welcome!—Timon of Athens, i, 2.

If before repast it shall please you to gratify the table with a grace.—Love's Labor Lost, iv, 2.

CUTLETS WITH PEAS CREAMED POTATOES

But who is this; what things Let the sky rain potatoes, -
of sea or land?—Milton, Samson Merry Wives of Windsor, v, 5.
Agonistes.

ROLLS BUTTER
COFFEE

Coffee which makes the politician wise.—Pope,
Rape of the Lock.

PICKLES JELLY

And fancies himself in thy groves, Academe.
—Lowell, Fable for Critics.

SALAD SANDWICHES

CHEESE STRAWS

I warrant there's vinegar and red pepper in't.
—Twelfth Night, iii, 4.

Pray, does anybody here hate cheese? I would
be glad of a bit.—Swift, Polite Conversation.

'T is my vocation, Hal; 't is no sin for a man
to labor in his vocation.—I Henry IV, i, 2.

ALMONDS AND PEANUTS

We have some salt of our youth in us —Merry
Wives of Windsor, ii, 3.

ICE CREAM

LOAF CAKE LAYER CAKE

SORBET

I always thought cold victuals nice.
My choice would be vanilla ice.—Holmes, Contentment.
All that's sweet was made
But to be lost when sweetest.—Moore, All That's Bright.
Here's a health to them that awa'
And here's to them that's awa'.—Burns.
Let us take a ceremonious leave and loving farewell
of our several friends.—Richard II, i, 3.

President-elect Perkins responded to the toast, "The Academy," and H. O. Woodward of Lawrence to "Random Observations." Mr. Melliken of McPherson was unexpectedly kept at home, but sent a line of greeting, as did Eugene Ware, who was kept in court by the trial of a case in which he was counsel. He sent a characteristic greeting:—

"Drink my health, oh banqueteers,
Drink it not with jokes and jeers,
Nor with spiritus fermenti,
Nor with beer, nor champagne plenti,
Nor with sorrow, nor with tears,
Drink my health, oh banqueteers.

"Drink my health, oh banqueteers,
Drink it for a thousand years;
While I, absent, hale and hearty,
Wrestle with the Magna Charta,
With the jury of my peers;
Drink my health, oh banqueteers.
"Yours,
WARE."

The evening session was wholly occupied by Thomas Emmet Dewey, the lawyer poet of Abilene, in a highly entertaining lecture, "Poetry in Song,"

illustrated by selections from Shelly, Tennyson, Lanier, Ingelow, Burns, Bret Harte and Eugene Field, in the musical rendition of which he had the help of Mrs. Mary Hoisington Neisley, Miss Ursula Ellison and Rev. J. Calvin Bogler. Text, poems and music delighted the large audience.

MENDELSSOHN Hunting Song, A major, Op. 19, No. 3
CHOPIN Nocturne, G. major, Op. 37, No. 2
ROBINSON Staccato Movement, Etude
The Rev. Mr. Bolger.

ADDRESS—"Poetry in Song," Mr. Dewey

WITH THE FOLLOWING ILLUSTRATIONS:

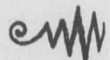
TENNYSON Crossing the Bar, Buck
SHELLEY a. The World's Wanderers, Hawley
b. My courses are led with the lightning, Fisher
c. The Indian Serenade, Metcalf
d. Love's Philosophy, Jordan
LANIER An Evening Song, Buck
ENGELWORTH One morning, oh! so early, Gatty
BURNS Oh, wert thou in the cauld blast, Mendelssohn
BRET HARTE What the Chimney Sang, Griswold
EUGENE FIELD a. Sleep, little One, Sleep, Porter
b. Little Boy Blue, Nevin
c. Some Time, Kjerulf

The following officers were elected for the ensuing year: President, L. H. Perkins, Lawrence; vice-president, Mrs. Charlotte F. Wilder, Manhattan; secretary, Miss Meddie O. Hamilton, Winfield; treasurer, Miss Florence L. Snow, Neosho Falls; executive committee—L. D. Whittemore, Topeka; A. D. Gray, Topeka; J. D. Milliken, McPherson.

Topeka was chosen as the next place for meeting.

Third-year

Rhetoricals



Sixth Division

Saturday, April 24, 1897

Music

Jennette Carpenter

The Red Cross Organization

J. M. Harvey

Fashions

W. T. Pope

Kansas' Greatest Man

Anna Hanson

Punishment and Torture

W. A. McCullough

Crete and Restless Europe

Quartette, Serenade

Misses Lyman and Pfuete

Messrs. Patten and Avery

F. J. Rumold

A Contrast

C. P. King

Superstition

Olive Sheldon

Theory and Practice

H. A. Martin

Amidst all This

Bertha Spohr

The Poet Laureate of Childhood

April 24th.

Saturday's session of the Alpha Beta Society was unusually short, but the time was none the less spent in good work. Messrs. Clothier and Shellenbaum favored the Society with an instrumental duet. After devotion by Lucy Cottrell, Marshal Pritchard initiated G. B. Rogers in the Alpha Beta literary field. "On the Ice" was the subject of a select reading by A. B. Conner. The next number was a declamation by E. K. Rogers which can be criticised only for its absence. E. Shellenbaum delivered an oration on Longfellow, and especially brought out the influence of this poet's works. A vocal quartet composed of Misses Agnew and Blachley and Messrs. Hullett and Crowl deserves praise for the spirit and life with which it was given. The debates this term have been especially well prepared, and the question, "Were the Greeks justifiable in the recent action with Crete?" was no exception to this preparation. Harriet Thackrey and Fred Dille presented the affirmative argument and Josephine Finley and H. D. Forest the negative. The Third Division of the Gleaner, edited by Lottie Berkey, contained some excellent contributions, and might be set up as a model. After recess and roll-call, a motion to adjourn carried, so the usual after-recess session was passed over. I. M.

MANHATTAN ADVERTISEMENTS.

R. E. LOFINCK deals in new and Second-hand Text-books and School Supplies of all kinds, gold pens, etc.

E. A. WHARTON'S is the most popular Dry Goods Store in Manhattan. The greatest stock, the very latest styles the most popular prices. Always pleased to show goods.

ELLIOT & GARRETSON, Clothiers and Furnishers, invite students and all other College people to call and examine their large stock of new goods. All the desirable things in men's wear. Latest styles in every department.

R. E. LOFINCK keeps a big stock of Watches, Clocks, Jewels and Gold Spectacles, also Musical Instruments.

THE SPOT CASH STORE is Headquarters for Dry Goods, Notions, Boots and Shoes, Hats and Caps, Clothing, and Ladies' Wraps. Lowest prices in the city. A complete grocery store in connection.

D. R. C. P. BLACHLY, Dentist. Gold filling a specialty Telephone No. 139

GRADUATES AND FORMER STUDENTS.

F. R. Smith, '93, is appointed city attorney of Manhattan.

The Ionian Annual attracted John Poole, '96, to Manhattan from Briggs, Kan.

The birch rod of F. E. Uhl, '96, is laid aside, and his school boys are at liberty while he is in Manhattan to attend the Ionian exhibition.

Edith McDowell, '93, has returned from a visit of several months with her brother E. S. Collins, '91, and Laird, '92, Cripple Creek miners.

Will Cavanaugh, '96, leaves Fort Leavenworth long enough to attend the Ionian annual. Ionian annuals always did attract the old students.

Eusebia Mudge, although she graduated in '93, has not forgotten the college. She came up from Eskridge to attend the Academy and the Annual.

Madeline Milner, '91, is on the program for the Chautauqua at Ottawa, in June. She will discuss the theme, "The Scope and Use of a Public Library."

F. G. Kimball, '87, has been detained in town by washouts on the railroads. He improves his time by visiting the College and attending the base ball game.

E. H. Webster, '96, has had no rest from handshaking for the last day or so. He can sympathize with President McKinley. He has taken charge of his father's farm near Yates Center.

Nora Fryhofer, '95, has finished her school on Fancy Creek, and leaves soon for Chicago, where she will visit her brother George, '95. She will also visit relatives in Cleveland during the summer.

Eusebia Knipe '90, Myrtle Harrington '91, Delpha Hoop '91, Edith McDowell '93, W. E. Smith '93, Jennie Smith '94, Elsie Crump '95, May Bowen '96, Edith Lantz '96, Sue Long '96, were seen at the meetings of the Academy of Language and Literature and at the Ionian Annual.

H. B. Gilstrap, '91, and Effie Gilstrap-Frazier, '92, bring out their Chandler (Ok.) News in a new dress, and make the following statement of storm damages: "We do not feel that apology for the failure of the News to reach its readers for the past two weeks is necessary in view of the ruin wrought by the cyclone, but no doubt our readers will be glad to know how the paper fared in the storm. Our office went down with the stone building in which it was located, and was badly wrecked, our hand press, paper cutter, racks, cases, and a good deal of other material being almost demolished, and a large amount of type and paper stock ruined."

Farm Knowledge.

The Sun has from time to time shown the importance of keeping an account of the cost of all farm crops. How few farmers there are who can tell what a crop has cost them! How few farmers there are who have studied the soils of their farms! How many of them have ever experimented by testing the various fertilizers on their crops? How many are there who have ever made practical tests regarding the best time of applying stable manure to the fields? Whether the best results are to be attained by broad-casting and plowing under at once or later on, or whether it is best to plow, then scatter the manure and harrow it in. Experience is always a rare source of knowledge to those who note and carefully observe things.

The observing farmer is in a great degree a student, for he studies to avoid making a disastrous mistake the second time. Mistakes are made lessons. If no memoranda is made, then the farmer must be blessed with excellent memory. It is best, however, to keep a record of events, as it becomes soon a very book of reference. A writer in the Farmers' Union, in an article entitled "The Proper Study Is His Farm," embodies some excellent sentiments and suggestions.

Some old poet has said: "The proper study of mankind is man." But looking at it from the standpoint of forty years, I would have it, the proper study of a farmer is his farm. "To know thyself" must be a proper thing. But to be able to make a success of life a man must be able to know, to understand his business. In no profession is it more necessary than in farming to know, and thoroughly know, every different kind of stock a man has on his farm, their habits the best methods in breeding and feeding. The history of the past year of the depressions in the markets of the different kinds of stock to calculate the prospects of the future by the study of the past, to know the different fields upon his farm, to understand kinds of soil in each field, to be able by his experience to take, not a chemical, but an agricultural analysis of the different soils and the properties each contain, their power to produce all kinds of crops and the reasons for their failure to produce are all essential to know. If failures come to know how to apply the remedy it is necessary to know the depth, strength and weight of the soil in one part of the field that may stand the drain of years of cropping, while in the same field there may be found soil so thin, so light in weight, that two or three years will exhaust it.

The farmer's field is his mint where his dollars are made just in proportion to the way he runs it. Remember, if there is some little defect, the dollars will not come out. If you let the sun and wind monopolize your moisture, very truly remarks the Western Soil Culture, which is your raw material or bullion, you may as well shut up shop and stop expense.

Calendar.

1896-97.
Fall Term—September 10th to December 19th.
Winter Term—January 5th to March 27th.
Spring Term—March 30th to June 10th.
June 10th, Commencement.
1897-98.
Fall Term—September 9th to December 18th.

To School Officers.

The College Loan Commissioner has funds now to invest in school district bonds at par. The law requires that no bonds be sold at par or less without being first offered to the State School Fund Commissioner and the State Agricultural College. Address

GENERAL LOCAL NOTES.

Prof. Popenoe visits Topeka today.

President Fairchild is in Topeka today on College business.

Ex-Regent Secrest attended both the Academy and the Annual.

Mr. H. H. Hoskins, editor of the *Norcatu Register*, was a caller on Wednesday.

Janitor Emrick rides a new "Auditorium" wheel of which he is justly enamoured.

Mr. M. E. Harlan of Atchison visited on Saturday with the family of Secy. Graham.

Anthony Koisky from Decatur County is looking around College with the idea of entering.

Editor Pilcher, of the *Lincoln Republican*, spent several hours at the College on Saturday.

The Manhattan Horticultural Society met on Thursday afternoon at the home of Prof. Willard. Papers were read by Mr. L. R. Elliot on "Trees," their use and abuse, and by Supt. Thompson on "Aquatics for Amateurs." The next meeting will be held May 27th, at Prof. Popenoe's.

Rain ended the game of ball between K. A. C. and Washburn College, Saturday afternoon. Owing to wet grounds in the park, Mr. Higinbotham's pasture, two blocks west, was used. The teams seemed, in the three innings played, to be quite evenly matched, the score being 4 to 4. With good weather and dry grounds, the lovers of the game would have been treated to a good exhibition of the national sport.

The inter-class field-day is fixed for May 17th. The class hustlers should get out their men and practice if they expect to lower any records. The following are the events: One-hundred yd. dash; 220, 440, 880 yd. runs; one-mile relay race; standing broad jump, running broad jump, running high jump, pole vault, hammer throw, shot put, base-ball throw, two-mile bicycle race. Applications for entry should be made to Philip Fox, manager.

Several members of the Faculty have received quite recently the prospectus of the Queensland Agricultural College, which opens June 30th next under the management of Prof. E. M. Shelton, the moving spirit in its organization. The buildings appear from the illustration to be set upon piles and are low single story structures, with wide verandahs on all sides. The course is three years. We quote from "Objects" as given in the prospectus: "The School is purely agricultural. The training, studies, and work of teachers and pupils are all planned to the end that they may help young men to a knowledge of the methods and reasons of successful farming. There is no thought of making learned men; but no effort will be spared in aiding the development of useful ones. The claims made for general culture and mental discipline separately considered, in courses of study, we feel safe in ignoring. There is both culture and discipline in daily work faithfully done and lessons honestly learned, though work and lessons relate only to the future occupation of the pupil."

Notice to Contractors.

Sealed bids will be received until 12 o'clock at noon of May 11th, 1897, at the office of Regent J. N. Limbocker, at Manhattan, Kansas, for the erection of a Domestic Science Hall for the Kansas State Agricultural College. The building is to cost about \$12,500. It is to be erected on the College grounds near the Main Building, and must be finished by October 22nd, 1897. Contractors may bid for the erection of the complete building, or may make separate bids for the mason's contract, the carpenter's and finisher's contract, the plasterer's contract, the painter's contract, and the carpenter's contract.

Plans and specifications may be seen at the office of Prof. J. D. Walters, of the Agricultural College, on and after May 1st, 1897.

Every bid must be accompanied by a guarantee of good faith and ability.

The Board of Regents reserve the right to reject any and all bids.

J. N. LIMBOCKER,

Chairman of Building Committee of Board of Regents.

Manhattan, Kansas, April 22nd, 1897.

THE IONIAN ANNUAL.

Young Ladies Entertain in a Program of Rare Excellence.

The Annual Exhibition of the Ionian Literary Society was given in the College chapel on the evening of April 24th, 1897. The chapel was crowded, although the weather was bad. Rain had filled the gutters in the afternoon and threatened to flood the land. College students, Faculty, townspeople, and a row of students from Washburn College, Topeka, resting after their thorough soaking by the rain during the base ball game of the afternoon, extended hearty applause.

The program opened with a choice selection from the College Orchestra—"From Dawn to Twilight." After the Invocation by President Fairchild, Miss Correll, as President of the Society, extended a welcome to the audience in a few well-chosen words.

eye but an hour a day, he prepared his history of Phillip II. So we see "Work is the law under which men live." The fields of grain do not convert themselves into food, the forest and rock do not shape themselves into dwellings; neither do the mines give up their treasures, and so long as they do not, the life of man will be no other than that of unceasing toil.

Work is the birthright of the human race. It is not a cause, but a benediction. All worlds are workshops, and this of ours is no exception. Heaven is to garner at last the best productions of earth for its greatest universal exposition. Endowed as we are with such god-like powers and placed in a world that is fitted to develop the best that is in us, what a shame it is to make one's life a bitterness and a curse. Whatever one's position in life, be assured first of all that all honest work, whether of hand or brain, is noble. It is the worker who dignifies the task, not the task that ennoble the worker. Unless one begins low, it is impossible to ascend; and the higher he climbs the more the glory and the greater



IONIAN LITERARY SOCIETY

EIGHTH ANNUAL EXHIBITION
APRIL 24, 1897

OVERTURE	FROM DAWN TO TWILIGHT	BENNETT
	COLLEGE ORCHESTRA	
	INVOCATION, PRESIDENT FAIRCHILD	
ADDRESS	EMMA FINLEY	TRUE NOBILITY
VOCAL QUARTETTE	ROCK-A-BYE	NEIDLINGER
	EMILIE PFUETZE	BERTHA SPOHR
	JEANETTE PERRY	GERTRUDE LYMAN
SYMPOSIUM	FANCY, OLIVE LONG	
	CREATIVE IMAGINATION, MINNIE COPELAND	
	USELESS, ONE WITHOUT THE OTHER, MAGGIE MINIS	
ILLUSTRATED LECTURE	ARTIST, MARY NORTON	GERTRUDE LYMAN
INSTRUMENTAL TRIO	HUSARENITT	HERBERT
	GERTRUDE RHODES, MAUDE BARNES, TACY STOKES	
IONIAN ORACLE		JESSIE BAYLESS
MUSIC		THE MISSION OF THE FAIRIES
ORATION	THE IDEAL ELEMENT OF THOUGHT	
	WILHELMINA SPOHR	
PLAY	THE PURSUIT OF THE HOUSE-BOAT	
VOCAL TRIO	ROSE WALTZ	PENSCHER
	EMILIE PFUETZE, JEANETTE PERRY, GERTRUDE LYMAN	
POEMS	SATISFACTION, RECOLLECTION, MEDITATION	MISS STOKES
	GRACE STOKES	
TABLEAU	PAST, PRESENT, FUTURE	

The Address, "True Nobility," was then presented by Miss Emma Finley.

The highest eulogy which can be paid to any one is to say that he is noble. This one word embraces character and esteem. It is a word for which no definition seems impossible. If one were to attempt to substitute some other word for it, he would fail to find one that fully expressed the meaning. There is nobility of feeling, character, and action. That of feeling involves all that is true and good. It is the condition of a person who looks with dissatisfaction upon everything low and degrading, and is conscious of entire harmony with that which is elevating and pure. Such feelings have animated all those who have been recognized among the choice characters of the world. The word character signified just a carving tool for marking upon a stone or metal. Next was a mark thus made, then an alphabetic sign, and again some distinguished feature of an object. And so it has come to denote that combination of qualities and traits, both intellectual and moral, which marks a personality. The noble character finds itself so entrenched in desires for welfare of all, that temptation in the opposite direction ceases to be effective. The man who gains the highest position in the end is usually the one who has the most difficulties at the start. Out of hundreds of such cases, William H. Prescott, the greatest of historians, is perhaps the most worthy of mention. By an accident at college the sight of one of his eyes was entirely destroyed and the other much impaired. Because of this reason he had to give up his chosen profession, that of law, yet he entered just as heartily into the field of history. In the face of all his difficulties, he produced the history of Ferdinand and Isabella, the Conquest of Mexico, and the Conquest of Peru, and later, when he could use his one remaining

the strength of the climber. "Time and I against any other two," cried a heathen philosopher. We should have equal courage; for there is no limit of time in God's great universe. The qualities, then, which must be sought in order to secure true nobility are a lofty purpose, deep sympathies, and absolute self sacrifice. Nothing is too small or nothing too hard for a noble soul to do. And as we look over the pages of history, we see name after name that calls up these thoughts of lofty aims and real unselfness. True nobility is possible to all and everywhere. It matters little whether one be in public position or in private station, in a royal palace, or a humble cottage, in professional life, or daily manual labor. There is no place where it will not have opportunity for exercise. Wherever generosity, purity, self-sacrifice, truth, and fidelity are found, there will be found a true, noble character.

A vocal quartette, composed of Misses Emilie Pfuetze, Jeanette Perry, Bertha Spohr, and Gertrude Lyman, then rendered a song, "Rock-a-Bye," in a most delightful manner.

A very pleasant variation from the usual order of debate, was the "Symposium." The first number, "Fancy," was presented by Miss Olive Long.

Fancy is the vivacious, the attractive; that which awakens the imagination to life and joy. It binds together and makes attractive all the beauties of nature. The ripple of the brook under the magical influence of fancy becomes exquisite music, while all the sounds, the song of birds, the dance of leaves, form a part of nature's great harmonic tone. The house of fancy is the realm of romance.

Fancy is the fairy wand that touches the poet's mind, and all the world of his imagination is peopled with beautiful beings. What would poetry be without the play of fancy which intervenes its every line and gives to it color and beauty. The artist too

must revel in his sunlight of fancy or his genius will be passed by unnoticed. And what are the charms of music? Music may have deeper meaning, it may inspire patriots to noble deeds, it may illuminate man's soul to the glory of his great Creator, it may enlarge the vision of his mind until the whole world is comprehended in his love and sympathy. But without fancy music's greatest power is lost, for the indescribable charm of music is the combination of sounds by which it leads the imagination into captivity and enslaves it to its fanciful caprice. Fancy is the stepping stone to love, it creates heroes out of common clay. What would life be without something to enliven prosaic existence? In life's spring the mind is peopled with fanciful beings out of which are created ideals that are to influence and guide the young mind through life. This is the pearly diadem that first makes virtue attractive to the young mind. This the glorious halo that surrounds the Son of Righteousness that first leads the mind to higher thoughts and aspirations. So in fancy we have the guide and the leader of that higher imagination upon which we base the most enduring moments of earthly life.

Miss Minnie Copeland gave to the audience the second part of the Symposium, "Creative Imagination." Creative imagination is the power of penetrating into the hidden meaning of things. Through its revelations may come keen delight, but its function is to "sieve upon the permanent meaning of facts." All its products are unconscious testimonies of that unity of spirit which binds man to man and man to nature in one organic whole. Creative imagination deals with the æsthetic, the practical, and the theoretic phases of life. The novelist, the sculptor, the poet, the artist, would be set adrift upon an uncertain sea, but for this faculty. Looking back through the ages to primitive man we find that all great progress has been due to the exercise of this one quality; all inventions, experiments, and constructions of hypotheses are the result of its exercise. Without this gift we would be deprived of the use of electricity, steam, and water power; without the factories, mills, and foundries, and denied what we are now consider the essentials of life. In all the advancement of science it had been an extensive influence. Crude notions and superstitious reasons constituted the intellectual condition of man before research had verified the thrones of creative imagination. The evolution of this faculty presents to our mind a vision which ever beckons us onward and upward, and in the end proves to be the soul embodiment of love, progress, knowledge, and power; abiding in the mind of man, and crowned by God as queen of the universe. Such is creative imagination, God's greatest gift to man.

These two, Fancy and Creative Imagination, were combined and shown to be "Useless, One Without the Other," by Miss Maggie Minis.

The imagination creates enduring forms, while fancy produces unreal and fantastic images. Fancy is undirected by the mind, as shown in the words of Polwhele:—

"With its gray column to yon sapphire cloud;
Stealing in stillness the calm wind ascends.
The unruled Time, though lost amid the shroud
Of Heaven, in Fancy, never ends."

The creative imagination is always under the guidance of the mind. No new things can be imagined. Everything is taken from the great master teacher, experience. It is difficult to distinguish where the one leaves off and the other begins. They seem inseparable. Then why try to perform an act with the one and neglect the other? Can we not blend these two forms of the imagination and by so doing make products more ideal, more complete? The successful artist forms his ideal from nature, by blending the beauty of one place with that of another. Then his fancy comes to his aid, helps him to put one touch here, another there, deepens the color in one place; adds a graceful drooping blossom, or spray in another and beautifies the whole landscape, until he is able to present a far more lovely and complete production than anything that can be formed in nature. In science, with her invention and discovery, I see as a starting point, Fancy, which as it materializes, becomes creative Imagination. 'Tis only by the perfect blending of these two faculties that the standard of literature is raised making it pure and wholesome, enlightening and entertaining. They work together in perfect unity in all that they do; the one uplifting, purifying, and ennobling, the other giving grace, airiness, and pleasing effect.

Miss Gertrude Lyman treated the audience to a side-splitting burlesque, "Popular Songs Illustrated," in which she had the assistance of an artist of renown, Miss Mary Norton. Both lecturer and artist made numerous clever hits, keeping the audience in a roar of laughter.

Misses Gertrude Rhodes, Maude Barnes, and Tacy Stokes entertained the audience with a piano trio, "Husarenritt," by Herbert.

The Ionian Oracle was edited by Miss Bayless. The Ionian Oracle—Vol. 8, No. 15. Motto—Self do, Self have. Editorial—It is only the things out of our reach that we wish for, and how soon they lose their value when we have them in our possession, not by uniting efforts of our own, but by the labor of some one else.

For a time we can shirk our duties, but we soon realize that our life is only a shadow of what it might be, because we have allowed others to obtain the knowledge we should have had, which comes only by self work. We cannot be true to ourselves and allow others to gain all the knowledge from the world's great teacher, experience. We must work if we would gain self-mastery. All the knowledge in the world is of no use to us until we possess it. It is important that each of us have a life work. A work too noble to trust in other than our hands. A work so grand that every thought, every act, will be to make us more worthy the "well done," which is given

only to those who perform faithfully and to the best of their ability all duties devolving upon them.

A number of the articles were as follows: "A Meeting of College Society Members." "A Man's Soliloquy in 1950." "That we need more physical training in our college to prepare the ones who go from these halls, to be better able to meet life's battles." "A description of the First, Second, Third, and Fourth Years." "An Essay on Boys." "A Bicycle Ride." "A visit to the Hamilton and Webster Societies." "Extracts from Diary of a Senior." "Parody on the Psalm of Life." "The remarkable Third-year with his cane."

Preceding the next number, and as a preparation for it, huge chunks of wood were thrown upon the stage in the endeavor to transform a beautifully decorated stage into a wild and dark forest. A child came upon the stage, and the success of the transformation was evident. She certainly was bewildered. The fairies appeared, and after gracefully hovering about the lost child, they rescued her. The fairies were: Misses Emile Pfuetze, Tacy Stokes, Anna Pfuetze, Bessie Browning, Bertha McCreary, Clare Long, Maude Curry. The character of the lost child was well taken by Miss Marie Haulenbeck.

"The Ideal Element of Thought" was the title of an oration by Miss Wilhelmina Spohr. Her subject was well thought out and delivered in an effective manner.

There is a feeling among many that idealism is a quality to be possessed only by lads and lassies in the spring when "fancies lightly turn to thoughts of love." But this is a mistaken idea. Into all honest, loving hearts is this spirit breathed and according to a man's temperament, it moulds the cast of his character.

If the ideal element were removed from our lives, this would truly be a world in which "the home would be a roof and four walls to keep out cold and wet; the table, a mess for animals; the grave, a hole in the ground. We cannot degrade the world into a mere material thing. Our very surroundings have the power to awaken within us thoughts and feelings distinct from the literal impressions which their nature and uses suggest.

The man who finds joy in nature cannot think of it as mere machinery, but he first conforms nature to the spiritual world and then finds beauty and inspiration in her handiwork.

Perhaps there is no one who possesses more of his ideal element in his thoughts than the poet. In poetry, art for the first time becomes thoroughly ideal, and there is nothing that can so stimulate in us the idealistic element as the reading of poetry. The soul is thrilled with a peculiar feeling of an indwelling in nature as we read from Tennyson, Wordsworth, or Milton.

Next to poetry we place music. In music, the actual embodiment of the artist's own feeling is shown. All art is idealistic and is an attempt to satisfy our æsthetic natures.

While poet and artist cannot escape from idealism, do not think it is the birth-right of these only. It has its seat in the soul, and any man may be an idealist. Every man should be, for it is the means of culture, improvement, and happiness to the common mind.

When once a man is alive to this ideal spirit, it is an inspiring influence in all his relations with humanity. Friendship and love embosom a certain divinity, and the responsibilities that come with such ties are felt to be sacred. Home is not home, if we see only the economic beauty surrounding it, and it is ideality that can make the word home produce "sensations sweet, felt in the blood and felt along the heart."

If their ideality can make nature speak to us in tones more sweet; if it can strengthen the ties of friendship, home, and love, let us cultivate this spirit; let us see in this world what our Creator intended us to see, and thus make our lives more beautiful and blessed, more fitted to enjoy the companionship of the infinite and perfect.

The poems, "Satisfaction," "Recollection," "Meditation," by the Misses Stokes, were read by Miss Grace Stokes.

SATISFACTION.

You can talk about your college girls,
An' city belles an' sich,
With all their pretty manners.
An' clothes an' ea-bobs rich;
But I'll tell you what's the matter,
I k-owa little girl,
What's never been to college,
Or in the city's whirl.
She wears a big slat bonnet,
Not cut out much for style;
But just to keep the sun off,
An' frame her pretty smile.

She comes runnin' 'cross the meadow,
Her bonnet on her arm,
O! Sol a pitchin' sun-beams,
That wouldn't do her harm;
Fer he jest gives love kisses,
As we'd all like to do;
An' leaves his prints upon her cheeks,
An' adds a deeper blue
To them there eyes so tender,
That can always see a way,
To reach the silver linin'
That brings a brighter day.

When I feel awful gloomy,
Cause things ain't turned out right,
My prospects take on better looks,
The minutes she's in sight.
She climbs up on the fence-bars,
An' prospec's on the corn;
An' says the oats is lookin' well,
An' all the things on the farm.
An' I feel purty certain,
That what she says is true;
For she's her father's sunshine;
He believes her: wouldn't you?

RECOLLECTION.

Down in the lower pasture,
Where the reddest berries grew;
We use to spend our happiest times,
And dream the whole day through.

Just dreaming happy futures
In our world where it was still,
And no one knew our secrets,
But the brook down by the mill.

It seemed that we got nearer
The sky we called our own,
When, stretched out on the shaded grass,
We listened to the moan
Of spirits—we both called them.
'Twas nothing but the breeze
Whispering soothing secrets,
To the rustling, restless trees.

But once, our sunshine darkened;
Some baby angels came
And took the little sister;
And we knew they were to blame
For the speck of white that trembled
And fluttered in the breeze,
And for the mournful echo
Of the sobbing, sighing, trees.

And John and I felt lonesome,
And slipped away from home.
We didn't go together,
For we wished to be alone.
We didn't hear each other
For we were both so still;
But our tears flowed off together,
In the brook, down by the mill.

Somehow, life lost the sparkle
It had in olden times;
For joys lose half their pleasure,
As children upward climb.
I know we'd think 'twas Heaven,
Once more to take our fill
Of the sparkling, silver water
From the brook down by the mill.

MEDITATION.

I wonder what's the reason why
A boy has so much fun,
A shootin' blue birds on the fly,
An' givin' squirrels a run;
An' playin' marbles with the boys,
An' a catchin' speckled trout;
I wonder why the world's all joys,
When your folks don't know you're out?

When you're sittin' in the school-house,
An' the day is dreadful hot,
Then your heart yearns for the coolness
Of the shady pasture lot.
An' when you get a right good chance,
An' the teacher's not about,
Just steal away to coolin' glades,
When your folks don't know you're out.

There's nothin' quite so comfortin'
As lis'enin' to the bees
A hummin' an' a buzzin'
Among the locust trees.
An' you feel so kind of easy,
But as you gaze about,
Your conscience sort o' smites you,
Cause your folks don't know you're out.

But when you turn to go back home,
An' the sun's a gettin' low,
An' your father's had to bring the cows,
Then somehow you tremble so,
He invites you to the wood-shed—
What he wants you never doubt—
For that's the way it always ends,
When your folks don't know you're out.

"The Pursuit of the Houseboat," John Kendrick Bangs' latest bit of humor, was presented in costume and made a decided hit.

CAST OF CHARACTERS.

ZANTIPPE.....	WINIFRED HOUGHTON
QUEEN ELIZABETH.....	BERTHA SPOHR
CLEOPATRA.....	JESSIE BAYLESS
PORTIA.....	JENETTE CARPENTER
CALPURNIA.....	MARY NORTON
MADAME RECAMIER.....	HARRIET VANDIVERT
DELLIAH.....	PEARLE CUNNINGHAM
MARGUERITE DE VALORS.....	CLARE LONG
MRS. LOT.....	GERTRUDE RHODES
MRS. NOAH.....	KATE PADDOCK
OPHELIA.....	TACY STOKES
HELEN OF TROY.....	HILDA OLSON
LUCIETIA BORGIA.....	FANNY CARNELL
CASSANDRA.....	BESSIE LOCKE

SYNOPSIS.

The House-Boat was originally moored on the banks of the Styx. In it were the club-rooms of the "Associated Shades," as the gentlemen residents of Hades chose to call their club.

The lady friends of the "Associated Shades," very like mortal beings, are inquisitive, and when one day they found the House-Boat vacant they took possession.

Captain Kidd and his pirate crew hear that the House-Boat is unoccupied, and take the opportunity to capture that valuable prize, little dreaming what they really have captured.

The ladies are so busy with their investigations they do not discover they are afloat for some time. With this discovery the scene of the play opens.

The boat is re-captured by the "Associated Shades," and the women rescued.

The vocal trio, "Rose Waltz," by Misses Pfuetze, Perry, and Lyman, was one of the enjoyable features that contributed to the perfect success of the entertainment.

The Ionian tableaux are always looked forward to with eagerness. Past, Present, and Future, represented by Ionians in the classic, quaint, gorgeous costumes of the past, the beautiful costumes of the present, and the silk hat and bicycle costume of the future (?) satisfied all.

The past was represented by Miss Pritner and Miss Houghton in Grecian and Puritan costumes respectively, and Miss Copeland as the hoop-skirt belle of ante bellum days; the present, by Miss Gertrude Lyman and Miss Olive Long as up-to-date summer girls, and Miss Cunningham in evening dress; the future, by Miss Harriet Vandivert, Miss Bertha Spohr, and Miss Marie Haulenbeck in chic bicycle costumes.

The programs were dainty creations in azure folded note paper, with the monogram of the Society in blue, and were enclosed in envelopes to match.

The Ionians are to be complimented on the taste shown in their stage decorations. Deft fingers and cunning brains united to beautify the old chapel stage. Truly the Ionians cannot be surpassed in the art of decoration. Nor is this the only art in which they excel. Their music was excellent; their literary work was of a high standard; and taking it all together, they are to be congratulated on having presented one of the best annuals in the history of society work in this College.

PHILIP FOX.
R. J. PECK.

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ADVANTAGES OF EXERCISE.

BY ALICE RUPP.

IT is not the purpose of this article to enter into an elaborate and exhaustive discussion of the subject, but rather to give a few practical hints or suggestions.

We all know that the neglect to use any set of muscles results in their waste, and perhaps entire disappearance. We have met persons who, believing that they were sufferers from spinal disease, have frequently remained without any motion for months. The result has been utterly wasted muscles or stiffened joints, from which they have only recovered by removing from the mind the illusion, then forcing themselves to some kind of active exercise. Again have I heard persons afflicted with rheumatism affirm that the affected joint was kept nimble only through exercise, though at times the intense, acute pain seemed almost unbearable.

Sometime ago I was greatly interested in reading a speculative article from the pen of an eminent Irish physician concerning the blind animals found in the Mammoth Cave of Kentucky. These animals are forcible and interesting examples of the removal of an organ by long disuse, perhaps in successive generations; now the Irish physician is curious to ascertain whether eyes would be restored to them, if for two or three generations some of them were transferred to the light. The experiment, however, has never been tried, much less proven.

Of all the tissues, the muscular is the most susceptible of increase by augmented exercises, as is illustrated in the fine physique of the Roman and Greek soldiers, the brawn of the athlete's and blacksmith's arm. It is for this reason that excessive exercise often proves injurious by enlarging the heart.

Intemperance in work is as detrimental as intemperance in eating or drinking, as the muscles become diseased and the mental springs snap. Hence, concentration of bodily or mental efforts on one object for a length of time is always injurious, as extreme exhaustion of the strained organs follows, and the bad effects will afterward react on other organs. Therefore, the best results are experienced from that system of exercise which engages the greatest number of mental faculties and groups of muscles in performing it. The proper kind and amount of bodily exercise depends so entirely upon the circumstances surrounding each individual, that prescribed rules are almost impossible. However, we may safely say that during ordinary health some part of each day should be spent out of doors, even when the weather seems unfavorable, for proper clothing should obviate all ill effects. Exercise should always be as active and general as possible, even continued to the point of slight fatigue. It should be taken during the early morning, but always with the precaution of taking some light food beforehand. When the individual returns from his early enjoyment of pure air and stimulated muscles, the sharpened appetite will be neither fault-finding nor finical.

As regards the methods of exercise, it is, or perhaps was believed (since the advent of the bicycle), that riding on horseback is superior to all others. Frederick the Great once said: "When I consider the physical structure of man, it appears to me that Nature had formed us rather to be postillions than sedentary men of letters." The greater variety of scenery it brings before the mind, the agreeable way in which the attention is fixed when guiding the movements of the horse, and the rapidity of motion it confers without fatigue, make it most desirable. Then, again, the liver, a ponderous organ weighing three or four pounds, goes up and down like the dash of a churn in the midst of the other vital arrangements at every step of a trotting horse; then, too, the brains are as thoroughly shaken up, in this method of exercise, as coppers in a money-box.

Of the joys and sorrows of the bicycle as a means of exercise, I shall say nothing, as Professor Graham most delightfully told us all about that in his charming lecture a few weeks ago.

Dancing is a cheerful and beneficial exercise, having the disadvantage, however, of being used within doors, in impure, confined air, and often in dusty rooms and at the most unseasonable hours. Base ball is reputed to be of great value as an exercise, as the emulation it gives rise to supplies that mental stimulus which is argued should be associated with every kind of bodily exercise. Gymnastics and

games of agility and strength are important to preserve the vigor and manly development of youth.

No list of exercises would be complete were walking omitted from the category. Our cousins just "across the pond" claim this as an indispensable kind of exercise. It is their boast that every healthy person, man or woman, should be a good walker, able to walk six to twelve miles daily, at least, and double that distance when gradually brought up to it. The points to be observed are to see that the walk be brisk and vigorous, not of a loitering or dangling kind; that there be some object in the walk besides its being a routine constitutional, and if possible, in pleasant company; that there be no tight clothing, whether for the feet or the body, that will constrain or impede the natural movements of the limbs and trunk; and so far as possible, the walk be taken in the fresh country air. Exercise with light dumb-bells and Indian clubs will counterbalance the arguments so often presented against walking as an exercise because of the comparatively small play it gives to the muscles of the shoulders and chest, and is still less to those of the arms.

A eminent French physician, surrounded at his last moments by several of the most distinguished doctors in Paris, thus addressed them: "Gentlemen, do not regret me. I leave behind me three of the greatest physicians." On being urged to name them, he replied, "Water, exercise, and diet," to the great discomfiture of each of those who had thought that his own name would have been among the number.

We can learn much hygiene from the rules observed in training by the average pugilist or pedestrian, whose motto is, "Work and diet." His careful observation and practice of hygienic rules bring him into a perfect state of health, which would render him the most long-lived of our kind, save for the course of dissipation that usually follows the contest.

"LOOKING BACKWARD."

BY PROF. C. C. GEORGESON.

SOME ten years ago, while a sojourner in that most charming country, Japan, I had occasion to take a journey into the interior, in company with another gentleman. During the forenoon the road wound through a fertile and densely populated valley; but early in the afternoon we began the ascent of a mountain range which formed the water-shed between the low coast country and the plains of the interior. To me, it was an enjoyable trip. The panorama, which changed with each turn in the road, was new and strange. The farm houses with their thatched roofs and unique little gardens, usually nestled in the shadow of small groves of giant bamboo, and they were so numerous that, aided by an occasional small forest plantation, the view in any direction seldom exceeded a few hundred feet. The rice fields, the small farms closely planted with strange crops, the swift-flowing little streams which at frequent intervals turned mill wheels, the temples, the shrines along the roadside, and the hospitable teahouses in which we were importuned to take refreshments and rest, were all objects of much interest. The whole scene was a miniature of the life and character of the Japanese people. Their thrift, pottering, painstaking industry and frugal contentment, and withal their love and appreciation of the beautiful in art and nature, were apparent everywhere.

It was with a sense of regret that we turned from this farming country and began the wearisome climb of the mountain road. With many contortions, it led through ravines, over crags, and along the sides of precipitous cliffs to the pass at the summit. The valley we had left was for the most part shut out from view. The scene still had much of interest. Cuts in the road revealed various colored strata of cinders ejected from a crater not many miles distant, and reminded us that we stood on a slumbering volcano. The royal lily (*L. auratum*) bloomed abundantly in places, shrubs and evergreens filled the ravines, and a pheasant would occasionally rise from the low bamboo grass; but, contrasted with the busy life below, this wilderness was monotonous.

Finally, when near the summit, a spot was reached which afforded a view of the whole day's journey. Looking back, the valley below, which we had seen only in piece-meal was now unfolded in one grand picture, lit up by the mellow rays of the setting sun. The road we had traversed could be distinctly traced by the eye. There lay clustered the several little hamlets we had passed; there was the temple whose bold sweep of roof outline we had admired; there was the

tea-house where we lunched; the mills, the farm-houses, the rice-fields and the mountain stream from which they were irrigated were all in plain view.

We lingered over the scene because of the interest and feeling it had aroused during the day. A few minutes' walk would bring us to the western watershed, where new scenes awaited us; but they did not as yet influence us because we had not experienced their attractions.

These incidents are called to mind by the present situation. This is the last time I shall be called on to furnish "copy" for the INDUSTRIALIST. The scenes and the pursuits in which my life has been bound up during the past seven and a half years will soon close from view. It is but natural and proper to take a look backward over that period in order to get a connected view of the work done, and note what has been left undone.

The Farm Department has developed considerably in certain lines during the past seven years, but the growth has been almost wholly on the practical side. To begin with the herd, we note that the Shorthorns have been much improved by a succession of such sires as Royal Pirate, Craven Knight, and Golden Knight, each of which has added to the good qualities imparted by his predecessors, and by the invariable practice of keeping the best of the heifers and disposing of only the inferior ones and the older cows, the herd has been kept young, and the average quality raised year by year.

The Jersey herd consisted in 1890 solely of the discredited Herd Book stock. While some of them were fairly good individuals, they had no standing among breeders. They were disposed of in 1891, and the proceeds invested in a few head of choice American Jersey Cattle Club stock. The policy of keeping the best has been practiced with them also. The sire which now heads the Jersey herd, Stoke Pogis Marigold, is one of the finest in America, both as regards individual merit and breeding. His dam and his sire's dam have together produced fifty and one-half pounds butter in seven days, and his ancestors for many generations are among the most famous of Jersey aristocracy. With such a sire and the very choice heifers of our own breeding now in the herd, which one of the best judges of dairy cattle in the country, Professor Haecker of Minnesota, has pronounced to be among the finest he has ever seen, some very choice offspring may reasonably be expected.

The value of the herd has further been enhanced, especially as a means of furnishing object lessons for students, by the addition of an excellent strain of Holstein-Friesian cattle. The original purchase consisted of two cows and a bull. One of the cows proved to be barren and was in due course sold to the butcher; but the other, Empress Josephine 4th, a winner of sweepstakes in a dairy test open to all breeds, on the Topeka fair grounds, is still in the herd with three of her daughters.

The Herefords and the Aberdeen-Angus in the herd, which consisted originally of unusually fine cattle, have at least held their own. The Herefords are now headed by the last son of the famous old Beau Real, a young fellow which proves to be a worthy son of his renowned sire.

A small flock of Shropshire sheep was added to the list of live stock in 1891, and it is still maintained.

But while there has been a decided growth in the live stock division of the department, the work of most importance has been done in the Experiment Station. In an article like the present, it will be out of the question to undertake to detail this work, and I shall therefore confine myself to pointing out some of the leading lines of experimentation. When I took charge in 1890, the Station had been organized only two years, and consequently there had not been time to mature extensive plans looking to continuity of work. Valuable work had nevertheless been done. Long before the Station was thought of, Professor Shelton had tested and reported upon the relative merits of many species of tame grasses, and in 1880 he started the "experimental acre," which is still continued, with a view to ascertain how well this soil could stand continuous cropping with wheat without manure. In the fall of 1889, a series of twenty-five rotation plats was started, comprising five rotations. This plan was extended the following year by the addition of another series of twenty-five plats, and finally, two years ago, twenty more plats were added, so that there are now seventy permanent plats on which fourteen different rotations are tested, both as regards the yields of the several crops in each rotation, and the question of maintaining the fertility of the soil. I consider these experiments to be among the most valuable we have undertaken, but they are not of the show order, and they will not interest those who clamor for immedi-

ate results. They will not be appreciated until a dozen or fifteen years hence, when the present system of soil robbing shall have exhausted the fertility to such an extent that changes in cropping, looking to the conservation of fertility, will be imperative.

But aside from this, many hundred plats are yearly devoted to the solving of problems in cropping. In 1890, I received the consent of the Board of Regents to devote all of the cultivated land to experiments in cropping, and the main crops, wheat, corn, and oats, as well as a large number of grasses and forage plants, have since been under experiment. This does not simply mean a test of varieties, but experiments as to methods of preparation of the soil, quality of seed, time of planting, various methods of culture, etc., all of which have involved a vast amount of careful, pains-taking labor. The results of this work have been published in the bulletins issued by the Department from time to time. To make this work possible, it became necessary to acquire more land, more especially as several acres of the best land were transferred from the Farm to the Horticultural Department. The difficulty was met by renting the Williston farm, adjoining the College land, sixty acres of which was plowland.

Not the least valuable, and perhaps the most appreciated work, has been our feeding experiments. We have, during the past six years, fed 96 head of steers, divided into 20 lots. These have in most cases been supplimented by collateral experiments in swine feeding, besides several independent experiments in the latter line. These experiments have been planned with a view to throw light on the problems of most immediate interest to the feeders of the State. We have thus tested the merits of rations compounded on the basis of the requirements of the animal system compared with a corn ration. We have tested various methods of preparing corn, as grinding, soaking, dry shelled and ear corn. We have tested the merits of barn feeding as against open yard feeding, and in an interesting experiment just closed, we have tested the relative merits of corn, red Kaffir corn, and white Kaffir corn as fattening materials for steers. A bulletin on the subject which I believe will prove of interest to the farmers and feeders of the State, is now in process of preparation. The Farm Department has issued twenty-four (24) bulletins since 1890, three are in process of preparation, and crop failures prevented the publication of some six or seven others, for which the experimental data were partially worked out.

In a review of the growth of the department, there should also be noted the paving of the barnyard, and the substitution of an electric motor for the old steam engine as the source of power; also, the recent acquirement of a farm house, and the extension of the waterworks system to the barn.

Among the things which have been left undone and which I have urged from the beginning, is the erection of a creamery. I believe that no addition could be made to the College which would result in so much practical benefit to the State, as the addition of a dairy school to the institution. It still remains to be seen what the future will bring forth in that line.

The scene which presents itself to the writer in looking backward over these years of activity is a pleasing one. I have enjoyed the work for its own sake. It is therefore not without regret that I shall soon pass round the hilltop which will obscure the view; but I leave it with the satisfaction of having done the work faithfully and conscientiously in the best interests of the institution and of the farmers for whose benefit the work was organized.

Weather Report for March, 1897.

BY C. M. BRESEE, OBSERVER.

Another month with rainfall considerably above the average. The excess over normal in rainfall for the four months of the year now completed, as shown by the table below, is 2.99 inches. A dashing rain of 2.71 inches fell on the early morning of the 24th, which did much damage to the farmers to the north of Manhattan. Much fence was carried away and several hundred head of hogs and pigs drowned. Just how much damage was done to crops is difficult to estimate, but it was considerable.

Corn planting has been delayed by the wet weather, but probably one-third to one-half the crop is in, and seeding is being pushed. Tame grasses are good, but prairie grass gets started very slowly. Some stock are on pastures, but it is too early; the feed is poor.

The prospect for a fruit crop is good.

Wheat and oats are in good condition.

Temperature.—The mean temperature was 54.03°, which is .3° above normal. There have been twenty warmer and eighteen cooler Aprils on our record. The highest temperature was 89°, on the 18th; the lowest, 31°, on the 14th—a monthly range of 58°. The greatest daily range was 55°, on the 18th; the least, 7°, on the 7th. The mean daily range was 24.9°. The warmest day was the 21st, the mean

temperature being 72.5°. The coldest day was the 7th, the mean temperature being 42.25°. The mean temperature at 7 A.M. was 46.27°; at 2 P.M., 64.13°; at 9 P.M., 52.87°. The mean of the maximum thermometer was 67.27°; of the minimum, 42.4°; the mean of these two being 54.83°.

Barometer.—The mean pressure for the month was 28.807 inches, which is .09 inch below normal. The maximum was 29.248 inches, at 2 P.M. on the 19th; the minimum, 28.374 inches, at 2 P.M. on the 3rd; monthly range, .874 inches. The mean at 7 A.M. was 28.832 inches; at 2 P.M., 28.783 inches; at 9 P.M., 28.805 inches.

Cloudiness.—The per cent of cloudiness was 46.11. This is 2.61 per cent above normal. The per cent at 7 A.M. was 45.00; at 2 P.M., 48.33; at 9 P.M., 45.00. Five days were entirely cloudy; three were five-sixths cloudy; six were two-thirds cloudy; two were one-half cloudy; four were one-third cloudy; and ten were clear.

Precipitation.—The total precipitation was 4.19 inches. This is 1.43 inch above normal. The table following shows monthly rainfall for 1897, the normal, and departure from normal:—

	Normal.	1897.	Departure from Normal.
January	.79	1.32	.53
February	1.04	1.20	.16
March	1.32	2.19	.87
April	2.76	4.19	1.43
Total	5.91	8.90	2.99

Wind.—The wind was from the north, twenty-five times; south, eighteen times; northeast, nine times; southeast nine times; west, nine times; southwest, seven times; north-west, seven times, and east six times. The total run of wind was 10502 miles, which is 624 miles above normal. This gives a mean daily velocity of 350.07 miles, and a mean hourly velocity of 14.59 miles. The highest daily velocity was 837 miles, on the 21st; the lowest, 86 miles, on the 6th. The highest hourly velocity was 50 miles, between eight and nine P.M. on the 21st.

The following tables give comparisons with preceding Aprils:—

April.	Number of Rain.	Rain in inches.	Per cent of Cloudiness.	Prevailing Wind.	Mean Temperature.	Maximum Temperature.	Minimum Temperature.	Mean Barometer.	Maximum Barometer.	Minimum Barometer.
1858	8	4.64	...	NW	51.66	87	30	...	...	...
1859	8	2.54	24	NW	49.43	90	22	...	...	...
1860	1	.12	28	NW	57.99	90	20	...	...	...
1861	1	2.00	34	S&SW	54.18	93	31	...	...	...
1862	6	3.63	48	N	49.68	78	31	...	...	...
1863	5	9.12	33	NW	59.43	93	39	...	...	...
1864	5	1.08	60	NW	47.52	79	27	...	...	...
1865	9	2.93	...	...	51.06	76	23	...	...	...
1866	...	...	...	...	...	...	...	...	...	...
1867	3	2.44	40	N	49.72	75	31	...	...	...
1868	7	1.96	56	N	48.25	83	27	...	...	...
1869	6	2.20	42	SW	48.10	77	22	28.72	29.10	28.15
1870	5	.50	45	SE	52.63	85	19	28.74	29.00	28.40
1871	7	3.00	43	SW	57.07	91	32	...	...	...
1872	7	2.06	52	SW	56.42	89	30	...	...	...
1873	9	1.67	57	NW	47.31	91	23	...	...	...
1874	3	1.40	67	NE	46.76	84	24	28.75	29.14	28.33
1875	7	1.60	44	NW	48.45	82	19	28.67	29.04	28.32
1876	5	7.52	43	SW	53.58	84	26	28.72	29.16	28.36
1877	6	4.08	48	NE	53.08	84	20	28.65	29.10	28.19
1878	5	2.02	51	NW	57.77	85	27	28.50	28.95	27.98
1879	8	3.21	52	NW	55.73	80	18	28.56	29.02	28.19
1880	2	1.08	32	SW	56.79	89	30	28.53	28.90	27.88
1881	6	1.56	57	NW	52.09	82	18	28.58	28.90	28.11
1882	7	3.47	57	SW	56.14	86	32	28.59	28.99	28.14
1883	7	2.36	54	SW	55.57	93	31	28.50	29.02	27.89
1884	12	3.23	40	NE	49.47	85	27	28.55	28.91	27.95
1885	5	4.03	44	NW	53.72	81	28	28.52	28.85	28.17
1886	5	5.26	47	NE	54.51	88	18	28.53	29.26	28.02
1887	7	2.85	33	SW	58.14	98	23	28.78	29.29	27.95
1888	6	1.38	27	E	56.72	93	28	29.10	29.53	28.64
1889	3	1.74	37	...	55.27	92	26	29.03	29.41	28.47
1890	5	1.74	40	E	56.25	93	26	28.91	29.29	27.38
1891	6	1.86	35	NW	56.24	91	21	28.87	29.32	28.44
1892	10	2.91	39	SE	51.69	85	26	28.79	29.27	27.95
1893	7	1.28	34	NW	54.34	98	26	28.72	29.09	28.04
1894	8	1.33	23	S&E	57.63	92	25	28.78	29.27	28.41
1895	5	1.46	40	SE	59.33	94	31	28.74	29.17	28.05
1896	12	5.49	44	SE	61.52	95	25	28.70	29.25	28.18
1897	7	4.19	46	N	54.03	89	31	28.81	29.25	28.37
Sums	241	107.54	1606	...	2095.3	...	...	746.64	...	...
Means	6	2.76	43.5	NW	53.73	...	...	28.72	...	...

WIND RECORD.

April	Total Miles.	Mean Daily.	Maximum Daily.	Minimum Daily.	Mean Hourly.	Maximum Hourly.
1889	7506	250.21	587	77	10.42	37
1890	9577	319.23	710	103	13.30	51
1891	7748	258.28	456	51	10.76	35
1892	11196	373.20	963	134	15.55	49
1893	10172	339.06	652	92	14.12	45
1894	11233	374.43	689	102	15.60	45
1895	8363	278.77	702	112	11.62	40
1896	12807	420.23	771	180	17.51	44
1897	10502	350.07	837	86	14.59	50
Sums	88904	2963.48	...	...	123.47	...
Means	987.8	329.28	...	...	13.72	...

The conditions that make slipshod farming fairly profitable will never return. The tillers of the soil must pursue the best and most economical methods in producing the crops of the farm. The best quality of everything should be produced. Quick-maturing cattle, sheep, swine, and poultry, as well as the grain crops. The successful farmer of the future must conduct his operations upon strictly business principles. He must work with his mind, observe the Farmer's Guide, as well as with his hands. He should read the experience of others, observe how his successful neighbor conducts his work, keep himself posted in all lines of agricultural work.

Calendar.

1896-97.
Fall Term—September 10th to December 19th.
Winter Term—January 5th to March 27th.
Spring Term—March 30th to June 10th.
June 10th, Commencement.
1897-98.
Fall Term—September 9th to December 18th.

To School Officers.

The College Loan Commissioner has funds now to invest in school district bonds at par. The law requires that no bonds be sold at par or less without being first offered to the State School and Commissioner and the State Agricultural College. Address

GENERAL LOCAL NOTES.

Mrs. Hitchcock leaves today for a visit with relatives in Iowa.

Mrs. Ulrich, Mrs. Scott, and Mrs. Otis attended chapel exercises Wednesday morning.

Grace Spalding drops out of classes this week to visit a year with her aunt in Washington, D.C.

Miss Gertrude Tennant and Miss Dorothy Diebler of Zeandale township visited College on Saturday.

The bug-hunters cover the land, penetrating to every nook and corner in search of entomological specimens.

H. J. Finley, First-year, held the lucky ticket at the Weston Show, Saturday evening, and rides a fine Fowler bicycle in consequence.

Prof. Mason has hosts of inquiries for fungicides, which he answers by a circular letter fully explaining the preparation and use of the Bordeaux mixture.

A ball club made up of six members of the College team and three Manhattan men played against Chapman this afternoon, and defeated the visitors by a score of 20 to 0. Manhattan played an almost errorless game, while Chapman piled up the errors until a dozen and a half stood against them. Dial, Noble, Wagner, Whitelock, and Ashbrook played their positions well, and Dial and Piersol contributed liberally to the run-getting.

A delegation of regents and patrons of Bethel College (Mennonite) at Newton visited here on Tuesday and Wednesday to study our methods and work. They expressed themselves as highly pleased with all they saw and learned. The delegation consisted of Jakob W. Penner, J. J. Flickinger, C. D. Krehbrial, Jakob Flickinger, Jakob Kaufman, John Senner, Rudolf Baer, and C. P. Stucky, most of them living in Marion or Reno county.

Prof. and Mrs. Willard entertained a party of friends, old and young, on Saturday afternoon in a May festival. A May pole was planted on the lawn, and guests of all ages danced around it. Refreshments were served, and then one by one the older members of the company were required to tell a story, sing a song, or dance a jig, and was relieved only when a piece of burning paper was reduced to ashes. Prof. Georgeson's jig was admitted to be the most highly entertaining feature of this unique event.

Resident members of the Alumni Association met at the College on Saturday evening to plan a reception and banquet to the outgoing members of the Faculty. Two committees were appointed—one on general arrangements, consisting of Wm. Ulrich, Mrs. Emma Haines-Bowen, W. E. Smith, Ivy Harner, and Sue Long, and one to draft a circular letter, consisting of F. R. Smith, Lora Waters, A. J. White, R. J. Brock, and Miriam Swingle. Another meeting is to be held Thursday evening, at which the committees will report.

Old settlers will remember Miss Lizzie Williams, an art teacher at the College about 1870, now well known in literary and art circles as Mrs. J. Wells Champney. The Chicago Tribune reports that her daughter, Miss Marie, a graduate of Vassar, has just been honored by the acceptance of a miniature at the salon of the Champs Elysees. Miss Marie went to Paris immediately after graduation, a year ago, to study miniature painting, which she has decided to make her life work. The honor is appreciated all the more because the miniature accepted was the only one sent by Miss Chapman.—*Republic*.

Notice to Contractors.

Sealed bids will be received until 12 o'clock at noon of May 11th, 1897, at the office of Regent J. N. Limbocker, at Manhattan, Kansas, for the erection of a Domestic Science Hall for the Kansas State Agricultural College. The building is to cost about \$12,500. It is to be erected on the College grounds near the Main Building, and must be finished by October 22nd, 1897. Contractors may bid for the erection of the complete building, or may make separate bids for the mason's contract, the carpenter's and finisher's contract, the plasterer's contract, the painter's contract, and the carpenter's contract.

Plans and specifications may be seen at the office of Prof. J. D. Walters, of the Agricultural College, on and after May 1st, 1897.

Every bid must be accompanied by a guarantee of good faith and ability.

The Board of Regents reserve the right to reject any and all bids.

J. N. LIMBOCKER,
Chairman of Building Committee of Board of Regents.
Manhattan, Kansas, April 22nd, 1897.

GRADUATES AND FORMER STUDENTS

Mary Cottrell, '91, is visiting with her sister Lucy, Second-year.

Mary Paddleford, Third-year in 1895-6, visited in town over Sunday.

V. Emrick, '95, is at College for a visit after a year of teaching at McFarland.

E. G. Gibson, '96, is up from Willard, Kansas, to see his old friends about College.

L. C. Criner, '92, editor of the McPherson *Opinion*, made a hurried call at College on Wednesday.

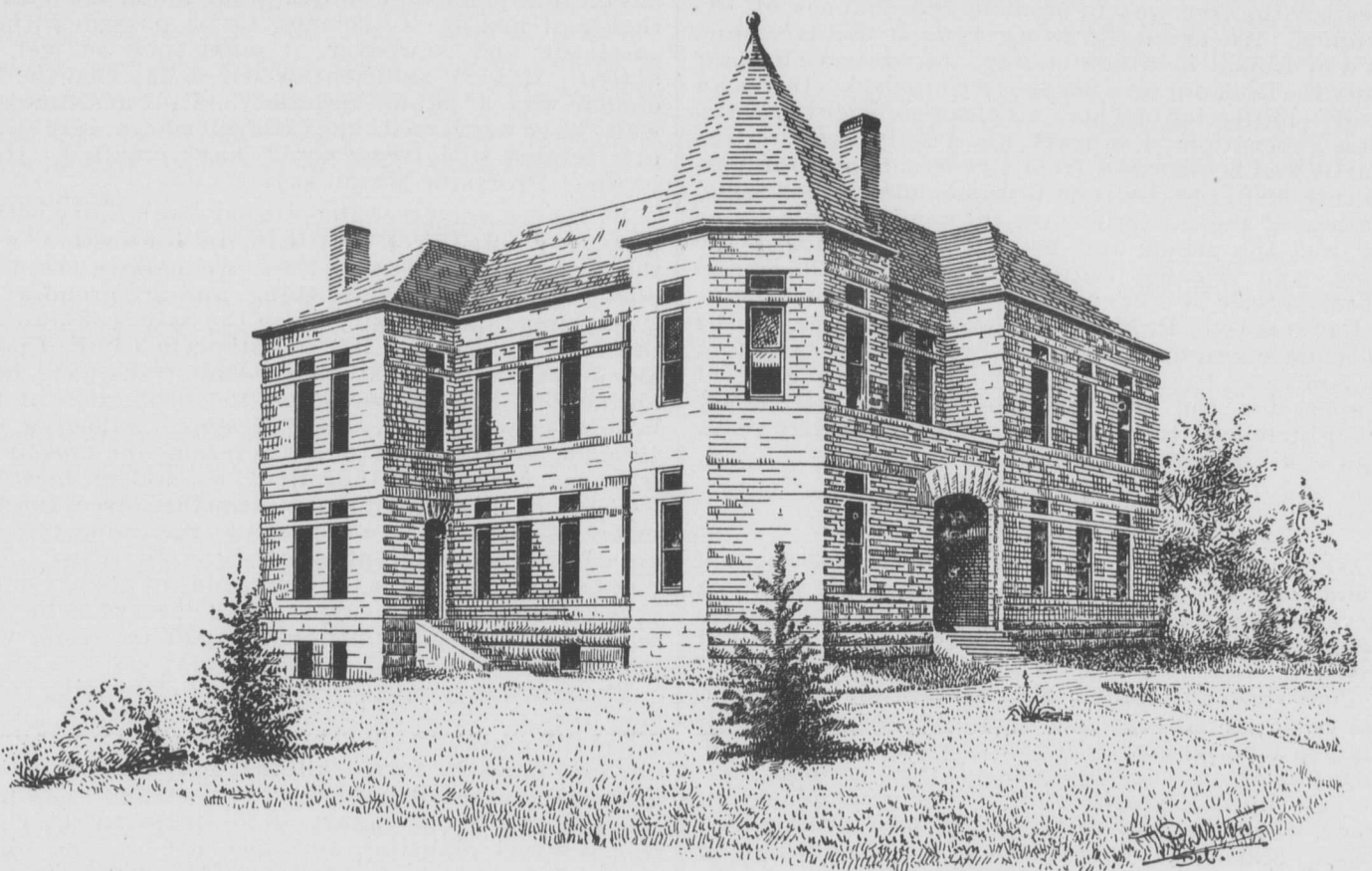
Invitations are issued for the marriage of Ora Wells, '92, to Edwin C. Troxler, at Irving, May 4th.

H. L. Snodgrass, Second-year in 1895-6, has just returned from Little River, where he taught for the past year.

H. N. Farris, student in 1891-2, grocer and postmaster at Altona, O. T., writes of continued interest in the College.

Minnie Cowell, '88, writes of change in her post as nurse from Luxow to Cairo, Egypt. She expects to soon be called to London.

Marie Blachly of Leonardville, a former student, was greeting old friends on Thursday, in company of her cousin, Libbie Blachly of Manhattan.



NEW DOMESTIC SCIENCE HALL, FRONT ELEVATION,

T. C. Davis, '91, of Fredonia, Representative from Wilson county, created a sensation at Topeka one day last week by refusing to testify in the bribery investigation. Being committed to the custody of the Sergeant-at-arms until he should answer the questions put to him, he applied to the Supreme Court for a writ of habeas corpus.

Gus Platt, class '86, business manager of the Guthrie, Okla., *Leader*, was one of the heroes of the great flood at Guthrie Wednesday. He and a tailor named Willis swam the mad, rushing torrents, at the risk of their lives, to rescue a large pleasure boat that was lodged in a drift. They manned the boat and rescued from trees two women, two boys, and a man. A cable was soon stretched across the river by firing a skyrocket, to which was attached a cord. In attempting to follow the cable the boat was jerked loose by the water and sent whirling towards the Cimarron. Panic-stricken women on the bank shrieked and fainted at the sight. Willis and Platt afterwards got control of the boat and landed their passengers in safety. They rescued many others. —*Manhattan Republic*.

Died, at the home of her parents, near Riley, Kan., on April 30th, of consumption, Joanna Freeman, '96, aged 22 years. Miss Freeman entered College in the fall of 1891, and after several interruptions on account of poor health, completed the course in June, 1896. During the last year she expressed a settled conviction that she would never be well, but carried her work as a student to the best of her ability in a cheerful and earnest way, that won the affection of all her classmates and teachers. When asked what she expected to do after graduation, she replied that she would stay with her parents while her life was spared. Recently her rapidly failing health had led to a plan for an overland journey to Colorado, and all preparations were made for starting on the morning of Friday last, when her spirit took its flight for the better land. She was resigned and peaceful throughout her illness, saying, "The Lord makes no mistakes." Funeral services were held at Riley, but the burial was in our city cemetery, where a multitude of friends awaited the procession. Twenty-three of her classmates stood beside the decorated grave, while Pres. Fairchild conducted the brief rites of burial, and a College quartette sang the beautiful hymn, "All the Way My Savior Leads Me."

The New Domestic Science Hall.

The last Legislature has shown its appreciation of the Agricultural College by making liberal appropriation for its equipment and maintenance. The amount given this institution is larger than any former appropriation, except that of 1893. Among the items is one stipulating \$16,000 for the erection and equipment of a new Domestic Science Hall.

In order to get the much needed building, ready for use by next winter, the Board of Regents, at their April meeting, made arrangements to begin its erection as early as possible. A building committee was appointed, and Prof. J. D. Walters was requested to prepare the necessary plans and specifications. This preliminary work, commenced over two years ago and perfected as the necessity for such a laboratory became more pressing, is now completed, as may be seen from a "Notice to Contractors" published in another column of the *INDUSTRIALIST*. Soon the energetic call for "more mort" and the busy hum of the carpenter's saw will proclaim that the first building in America, exclusively devoted to instruction in special hygiene, scientific cooking, and women's handiwork, is becoming a reality on the

sunny campus of "our College."

The general character of the Hall may be judged from the accompanying cut, which represents the structure as it will appear from the southeast. It will measure 70x84 feet on the outside, and will be built of the beautiful and substantial limestone which abounds in the hillsides about Manhattan.

All the material of construction will be treated in the most natural modern style. The roof will be covered with tin shingles. The interior will be plain and substantial. The main floor and the basement will be occupied by the classes in cooking, dairying, and special hygiene. In the second story, will be located the classes in sewing. Each floor will contain four class rooms of different sizes, an office, two small rooms to be used for a variety of purposes, and a water closet. Ample provision has been made for heating, ventilating, and lighting. The hall will be located about fifty steps west of a point midway between the Main Building and the Library.

The Kansas State Agricultural College was among the very first institutions in America to make educational manual labor a part of the daily exercises of every student, and it will be the first to build and equip a home for the art of good housekeeping.

An Invitation.

928 Union Street,

Emporia, Kans., April 28, 1897.

Students and Faculty of Kansas State Agricultural College.

Dear Friends—The students and friends of the Kansas State Normal School offer greeting and extend a cordial invitation to you to be with us at the Inter-State Contest between Iowa, Missouri, Nebraska, Michigan, and Kansas, which takes place in the Albert Taylor Hall, May 7th, at 8 o'clock P. M.

We understand that the railroads will make rates of one and one-third fare for ten or more from the same place. We can make cheap comfortable lodging and board arrangements for all who will attend, if you will notify us at once. Very respectfully,

J. W. EVANS, '94, Com.

Trees.

This is a broad theme, ranging from the hyssop on the walls to the cedars of Lebanon. It is a theme too broad for a single paper. What shall we say and what leave unsaid?

The value of a tree is hard to estimate. Intrinsically, it may be great; individually, it may possess inestimable value; relatively, the value may be large.

The tree may be a landmark; it may be valuable as a shelter, as a trysting place, as a place of sepulture, or as the outlook for a diminutive Zaccheus. Hollow, it may be the home of the opossum or the coon, or the place of concealment of the charter. It may be sacred, as the cypress under which Cortes wept, or glorious as the three score and ten palms of Elim; barren as the fig tree by the way to Bethany, or fruitful as the vines of Eschol; rugged as the gnarled olives of Jerusalem, or trim and symmetrical as the spruce of the north country; peculiar in growth as the banyan or the cactus; beneficent in product as the bread-fruit, or valuable as the cinchona and the rubber tree.

Whether for foliage or bloom or fruit; for bark or timber or sap; for medicine or shelter or for refuge, there is value in the tree. The necessities of living made our ancestors very vandals of the forests. To destroy the tree was to promote the chances of existence. An enemy grew up against the tree, and it was despoiled without mercy, and while we bruised only the heel, our own heads were crushed. It was an impossibility for one man to clear sufficient ground in a generation to support his family, and so the battle was bequeathed from sire to son, and the desperate struggle went on till the denuded hillsides and valleys of the east cried out in unmistakable tones against the crime; and brooks ceased their steady flow, and became raging torrents at times and parched beds at other times.

Perhaps Geo. P. Morris, a poet that some of the elder ones knew and admired, first touched the chord in American hearts, that responded with a glow of respect for the tree, so long and so mercilessly slaughtered, by the publication, more than fifty years ago of his pathetic appeal,

"Woodman, spare that tree,
Touch not a single bough;
In youth it sheltered me,
And I'll protect it now."

We, of the prairies, have had a different work in hand from that of our eastern ancestors. It was ours to cause the tree to grow where none had grown before; to multiply the growth where there was but little.

That venerable editor, Murat Halstead, in a speech delivered at Kansas City, on the occasion of his visit to Kansas last fall, expressed surprise and admiration at the development of tree growth that he saw in this prairie State. The multiplicity of trees, where he had pictured an open prairie, surprised and deeply impressed him. The changed character of the country in respect to trees was the text of an eloquent speech.

There is a very pleasant legend in verse that tells how Hugh Talent, a young Irish school-master of the early days went about, between terms, wandering always along the streams in a love-lorn way, and planting the sycamore seeds, till the white trunks of his favorite tree stands everywhere along the water-courses, reminders of his wanderings.

To make amends, in some degree, for the destruction of trees in New York City, and to replace, where possible, those that have been destroyed, a society of individuals has been organized, called the "Tree Planting Association of New York." The Association is composed of men of well-known public spirit and intelligence. Some such organization might well be instituted and maintained in lesser towns where the spirit of the people needs to be encouraged to perform acts of merit rather than of vandalism. There is no doubt a latent love, or at least an appreciation, of the beautiful in every breast, that needs only to be called out and put into exercise. This feeling might work marvelous changes, even in our midst; but it would be greatly dampened, having set a tree, to find that tree hitched to a visitor's horse, which horse also vigorously detached the bark therefrom.

Prof. Mason has recently spoken on this subject in a way that wipes out the charge of "general incompetence." He says:—

"Manhattan has many tree lovers, and quite as many tree abusers. We see many a pretty home with its row of elms along the street, and other evidences that the owner delights in their shade and beauty. But we can scarcely drive two blocks without seeing a beautiful tree to which some one has hitched a horse long enough to allow him to gnaw the bark off half-way round the trunk.

"If the horse owner had seen a five-dollar bill lying on the table where he called, it is not probable that he would have taken it, or even that he would have felt tempted to do so; yet he drives away, leaving behind him ten dollars' worth of damage—damage which cannot be figured in dollars—to a tree which it has taken time and care to plant and years to grow, and his standing in the church is as assured as before."

We will add that the horse that ruined the tree can be replaced in three or four years, but the tree takes a decade to grow. We have no words that will do justice to that horse-owner who ties to a shade-tree. Such an act is in violation of every principle of justice and good citizenship. To be sure it may be said that a proper hitching post should have been provided, and there is force in the remark; but the man that will tie his horse to your tree would not see a hitching-post, though close at hand. It has even been observed that the tree is used when the

post is quite as handy. "The horse likes the tree best, you know."

That will be a happy day when Manhattan's trees are respected by the official and the employee and the citizen alike; and when each individual adds to the general beauty of the city by specially beautifying his own premises.

It has been our dream of years that some time such a culmination might be reached. If the mayor elected bent the entire energies of his term to this consummation, it would be two years well spent; and no other interests need be neglected, meanwhile.

Trees suffer in other ways than by the ravages of horses. It would seem that fully five per cent of the young orchards that have come under our observation in this and adjacent counties recently, have been girdled by rabbits. In some instances the young trees were nearly all girdled. Such destruction is very discouraging, but it is also a thing that can be prevented. And in this case, as in many others, the ounce of prevention is worth a pound of cure. The rabbits cannot all be killed, but the trees may be protected by only a little labor at the proper time.

Prof. Mason closes his article on "Uses and Abuses of Shade Trees," from which we have quoted, by saying: "A village improvement association could find noble work to do in this direction. The work must be a patient one and a work of education. It cannot all be done in a day, or a summer; but let every tree lover do his part and that promptly."

We make still another quotation from the Professor's article, because it fully expresses what we would say on that particular subject, and touches a matter that is of too great moment to be passed without comment; and, moreover, it must soon be met by action. It is not sufficient excuse to say that the telephone was a public necessity. Its lines could as well have traversed the alleys, where very little interference with trees would have resulted. Here is what Professor Mason says:—

"By far the worst tree abuse in our community is that perpetrated by the city fathers, in connection with the telephone franchise. Now, we believe the telephone exchange is a good thing, and are proud of it. It has proven a necessity; even the babies of Manhattan have to have it. But to authorize a line of poles along every street just where shade trees have been authorized, and grown under the protection of the law, is the worst tree abuse of ages. Allowing the linemen to saw out at their discretion the tops of all trees reaching above their limit, no matter how the top may be disfigured, and to keep these trees forever below this line, is an outrage that the property owners of Manhattan ought to combine to resist. The trees of our city add many thousands of dollars to the real value of city property. They deserve to be protected and their planting encouraged in every way possible."

There is a diversity of opinion as to trimming trees. One likes his shade to be cast by cabbage tops, another by the natural tree. One must cut the comely cedar into fantastic forms, another may choose to let it grow untrimmed or but slightly shortened. We may let each hold to his vagary so he keeps to the right line of street planting, and does not let the limbs droop to the peril of umbrellas. The maple may meet the idea of one, the elm of another, or the ash or the box-elder that of a third, but all may be set in harmonious lines and thus conserve the general good.

That double row of elms that adorns the central part of Juliette Avenue is a thing of beauty that may remain long time a joy, and its extension south and north and westward to the College campus should be the object of effort on the part of our city fathers, and the proper ordinance to encourage such extension should be passed. The work could be accomplished at very little public expense.

But what shall be said of those citizens who, favored by the provisions of the ordinance, and encouraged by it to make neat parks in the margins thus set apart, allow driveways to be made instead of parks, and then turn a place of beauty into a dusty highway? Here, again, is work for the village improvement society, or for the Mayor by proclamation.

What tales a tree may tell! What faithful witnesses, on occasion! Recently a long-pending law-suit concerning the boundary of the Muscupiabe ranch in California was settled at Los Angeles in a novel manner. A huge sycamore gave the testimony. The original survey had been made about 30 years. The lines were in dispute. The surveyor's notes mentioned a sycamore as a witness tree. This was sought for, and from its gnarled side a huge chip was taken, and there, in the heart of the tree, were the original marks made long ago. The characters appeared inverted on the chip and as plain as the day when first made—"M-30-B. T.," signifying Muscupiabe Station 30, blazed tree.

The chip was forwarded to the Federal courts at Los Angeles, and used as evidence, thus clearly proving the original line of survey, and settling a case that has cost many thousands of dollars in litigation.

In the year 1877, there was cut on McIntyre Creek, Pottawatomie County, an oak tree with a diameter of about twenty-four inches. In working the timber into "shakes" the distinct cut of a steel-bitted ax was discovered. The cut had been made when the tree was about eight inches in diameter. Over this had grown ninety-three annual layers, completely covering, and to all external appearances obliterating, the wound. A section of the tree is in the State Historical Society Rooms at Topeka, plainly testifying that, as long ago as in A. D. 1784, someone blazed that oak on McIntyre Creek.

Above the timber line, as you ascend Pike's Peak, several hundred yards beyond the present well-defined timber line, are to be seen stumps of large trees weather worn and storm tattered. How long since these flourished, where now no tree may live, who can tell? These ancient stumps are the witnesses that tell of great climatic changes in this region.

In the Lake Superior copper regions, a fir tree 100

years old was found growing over the dead trunk of a cedar that must have occupied hundreds of years to mature and decay, and twenty-five feet beneath these were the tools of pre-historic miners of copper.

We enjoyed a picnic dinner one day with a party of four persons on the stump of a redwood in northern California. The square-cut top of the stump made ample room and to spare. The concentric circles which could distinctly be seen showed that the tree upon whose stump we were holding revel must have been 150 years old when Columbus discovered America.

Some of us have been passengers in the six-horse coach through the tunnelled Sequoia in the Big Tree grove of California, and found ample space for passage, and wondered at the immensity of the great tree that could still undisturbedly flourish though a highway for travel were hewn from its heart. Look up at the towering tops, touching the clouds that sweep along; marvel at the wonderful tree, a tree that was immense in the days of Columbus, and even a large tree when Ericsson settled in Boston!

The need of reproducing forests, to replace those so lavishly destroyed, has become a matter of great importance, and is yearly becoming more so. The floods now devastating the lower Mississippi, overwhelming settlements and defying levees that have done good service in years past, call for restoration of those natural reservoirs for water, the immense forests at the head-waters of the Mississippi and the Missouri.

One of the later acts of President Cleveland, and one that may serve to keep his memory green, was that of February 22, when he set apart an aggregate of 21,000,000 acres as forest preserves. These are in thirteen different localities, in North and South Dakota, Wyoming, Montana, Utah, Idaho, California, and Washington. Pres. Harrison had set apart 18,000,000 acres, so that the aggregate now reserved is 39,000,000, or about one acre in sixty for our whole territory, if we may depend on these figures.

But preserving a forest is one thing, and reproducing it quite another. Under natural conditions, a pine forest matures in about 200 years; but a denuded region, bereft of the humus and the protecting shade of larger growth, is much slower in maturing. We consume, according to careful estimates, twice as much timber as is represented by the annual growth. How long at this rate—unless something be done to protect it—will our inexhaustible timber supply last? Fortunately the conditions in a prairie State like ours prompt us to cultivate and care for, rather than to destroy, timber growth; and it is not too much to expect that our climatic conditions may in time be changed by the presence of considerable forests.

There is a plain proposition of profit in timber growing that ought to appeal to the average Kansan. Every tenth acre of the present corn area in Kansas might profitably be planted to walnuts; and the results would be slow but sure. Less corn would be an advantage, and, annually, after a single decade, the product of the walnut growth would be large, and of increasing yearly value.

Let me close this appeal for trees with the words of Mr. C. L. Lockman, in the April Household:—

"Bring both the tender shrub, the tree and vine,
And plant them by the house, or in the field;
They will in time, we hope, for thee or thine,
Reward all toil—a precious harvest yield."

"If not for thee, for others they will bear
The shining apple, pear, or luscious peach;
The juicy grapes, all sparkling bright and rare,
Will smiling hang within our easy reach."

"Plant oak or ash in useless spots of ground,
A birch or willow at the running brook,
Some flowering shrub upon the grassy mound,
Or useful tree in any vacant nook."

"The graceful maple and the fragrant pine,
In school house grounds where children love to play;
Some hardy trees along the highway's line,
To shade the traveler on his tiresome way."

"The birds will carol from their leafy bower,
And build their nests with tender loving care;
The bees will gather sweets from every flower,
Whose store of honey you may live to share."

"And when you've gone beyond this earthly sphere,
Your labors in each season's round will bring—
To bless your memory and to keep it dear
The fruit in autumn and the flowers in spring."

—L. R. Elliott, before the Manhattan Horticultural Society, April 22nd, 1897.

Horticulture, when followed intelligently, gives better returns upon the capital employed than almost any other branch of agriculture; but it is a business for careful, thoughtful, industrious men, and for such only. Guess work and half-way methods, in the opinion of the *Farmer's Home*, will always bring disaster.

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FROM CEYLON'S ISLE.

A PRIVATE LETTER FROM D. C. FAIRCHILD, '88.

THE seashore of Ceylon is one of its principal charms, I think. Mont Lavinia Hotel, which lies near the south point of the island, and is reached by a suburban railway, resembles, as nearly as any place in the tropics could, a New Jersey sea-side hotel. To sit on the lawn in front of the hotel and gaze up and down the coast, is to drink a draught of natural beauty never to be forgotten. The blue water breaks in long white waves on the shining sand. The glowing sunlight is only broken here and there by the feathery plumes of the coconut palms along the beach. The native barks, or outriggers, with their curious sails and skeleton-like bodies, remind one of the "skaters," or water-beetles, on the little pools in the brook back of the vineyard. As they come sailing in over the breakers, they seem as much a part of the scene. The rocks are covered with all sorts of red, green, and brown algæ. Troops of the gayest colored fishes swarm the holes in the rocks, filled by the receding waves, and hosts of sand crabs of every form and color scamper sidewise over the sand and slippery rocks on your approach. Bright-flowered morning-glories form big patches of dark green on the lawn, and the American agave plays its part, as it does in Italy, in the makeup of the landscape.

It is just such a scene as you can well imagine from your reading, and from the pictures everywhere in the art galleries. It is an ideal seaside scene, just such as you built for yourself when you first read "Robinson Crusoe," or, "Treasure Island."

There are perhaps few places in the tropics where Europeans live, and out of which they have built a health resort, as beautiful as Kandy. Nowhere in Java can be found such a combination of English comfort and tropical luxuriance. Most of the Javanese towns lack something which gives to those of the English colonies a look of luxury and comfort.

I started in the early morning and rode for five hours with my face riveted to the window panorama which spun past me. Had I never seen Sumatra, I could have had nothing with which to compare this almost matchless ride. In luxuriance of vegetation, it is inferior to West Sumatra, but it far surpasses any similar ride in Java.

The railway follows the left side of a deep, broad valley, filled with paddy (rice) fields, and clothed on both sides with a wild mixture of tea, cocoa, and coffee plantations, tropical fruit trees, and neglected jungle. One notices immense wine palms with their drooping plumes; delicate, slender areca palms, resembling most a feather duster; coconut palms; now and then the immense head of a *Corypha umbraculifera*, with its fan-shaped leaves and occasionally its stupendous inflorescence; broad-leaved fruit trees, bananas, pineapples, golden-flowered mallows, immense scarlet-flowered hibiscus shrubs, morning glory creepers, purple *bouganvilleas*, with their immense clusters of flowers (technically made up of involucre) golden-stemmed bamboos, with their waving plumes, cotton trees (*Eriodendrons*) with their branches peculiarly horizontally spread out; Ceylon almonds (*Terminalia catappa*), with their large leaves, many of them reddened and ready to fall; slender, succulent-looking pawpaw trees (*Corica papaya*) with castor-oil-bean-looking leaves and melon-like fruits hanging from the trunk;—in short, a mass of creeping, hanging, standing, and leaning vegetation impossible to describe. The eye tires of the bewilderment and seeks to rest its muscles by a look off at the distant hills half covered by the watery vapor which soon shuts out the distance in the tropics. Gneiss cliffs stand out against the horizon almost rugged in their grandeur, were they not padded and rounded by a thick felt of vegetation.

Tired out with seeing and enjoying, I rode up to the Queen's hotel in Kandy, just in time to rest my senses a bit and get a comfortable tiffin, as lunch in the tropics is called. My chief aim in visiting Kandy, perhaps, was to study the Botanic Gardens there. My friend warned me not to neglect, too, the environs of Kandy, and justly, for of all places in the tropics which I have seen this possesses the most beautiful surroundings.

My first visit to the gardens could not be postponed till the following morning, but was made in a drizzling rain storm. Rain storms are not so unpleasant in the tropics where they are only drizzles, as in the temperate regions, for they protect you from the burning rays of the sun, which if endured too

long or if allowed to find their way to the upper end of your spine, make you nervous and faint.

An ordinary botanic garden is to a garden in the tropics what a barren pine forest of northern Michigan is to the virgin jungle of Sumatra. A well-kept garden in Ceylon is something superbly beautiful. It is the attraction to a visitor, be he merchant, pastor, or school girl. Where in Europe the crowds gather in the Louvre and Luxembourg and weep over Murillos or Rembrandts, in the tropics they walk and drive under spreading rubber trees, or gaze in wonder over lawns and groups of new and strangely formed trees, vines and shrubs, snuff the strange odor of the flowers, clap their hands at sight of the gorgeous butterflies which flutter here and there, or listen with quickened breath to the tales of the gardener as he points to the deadly Upas tree so famed in stories of travel, or recounts a tale of the cobra and its deadly attacks.

These gardens of Peradeniya are among botanic gardens what the Louvre is among art galleries. It lacks, in a strange degree, the scientific character which it ought to have. Amidst its wealth of costly plants it has only one little museum with a collection of useful woods, a herbarium, and small library and office building. In the museum building, is a room which is used for a laboratory, but when I asked for a microscope it was not forthcoming. It is a shame that the English should allow their garden to be outdone by the Dutch. The reason is to be sought in the extreme practical turn of mind characteristic of the English.

It is in these gardens that the Famous Burnese bamboos are seen in their greatest splendor. Imagine wandering in the shade of a clump of grasses over 100 feet high, and pounding with your knife upon hollow grass stems as large as the ordinary gas main! These stupendous tufts of bamboo, which spring up, as it were, in a single night, and yet live for many years (speaking of the individual stalks which grow a foot in twenty-four hours) are more than forty paces in circumference. Nothing of the kind in Java can compare with these colossal specimens of the bamboo.

FIREPLACES.

BY JULIA R. PEARCE.

MOST of us who have lived in Kansas from childhood know little of the possibilities of a fireplace. We have become accustomed to the constant pressure for economy in fuel, living as we do where the vast prairies stretch out on all sides, showing no promise in the way of fuel, no forest to resort to, no drift-wood from sea shore, no peat from the logs, nothing but an expanse of buffalo grass. This scarcity of fuel makes the old fireplace where huge logs can be consumed in a day an impossibility. The rollicking fire in a fireplace is out of the question. And with its departure, goes a wealth of romance and association.

The few times it has been my good fortune to become acquainted with some fireplaces are bright places in my memory. It has taught me that there is more of home in a capacious log house upon the mountain side with a huge fireplace in it than in any pine box set up on a stone foundation with a furnace in the cellar or an air-tight sheet-iron stove some where inside.

There have been many devices for holding fire, that houses might be warmed or food cooked, from the camp-fire of the Indian, the small kettle or iron box of coals used in the house of Pansa, the old Roman patrician, to the huge fireplace of feudal times, and in our own New England, down to base burners, furnaces, and steam pipes. The Russians have a queer way of heating their houses. The rooms upstairs and down are arranged each side of a partition thick enough to admit of a hot-air passage the full length of the house. The fire is furnished at one end by a blaze of burning straw which is kept going usually by a small boy or some insignificant member of the household, or rather one who is so significant that some such safe place is needed where he can be industriously employed; for there is no time to be wasted if a large house is to be kept warm by a straw fire. The rooms are warmed by these hot walls.

I once visited a house of this kind, and the room into which we were ushered, with its cement floor, with no suggestion of carpet or rug, and no sign of a fire, and did not look very inviting after a cold ride; and not being familiar with their methods of heat-

ing I was rather puzzled to see them set chairs for us in a row facing an inner wall. We took the chairs so placed, but felt rather foolish sitting with our backs to the room till some one reached out and touched the wall in front. It was hot, and as it was a cold day, we gratefully gathered up to the hot wall.

No wonder that in olden times people worshipped fire. It meant so much to them, and even now while we boast our progress in chemistry and think we know the "History of a candle," it is still as much a mystery as ever. An open fire has the old fascination, whether it be a camp fire in the woods, or a fire on the hearth. There is little to cheer in an airtight stove with no fire visible on a rainy, dreary day. One sympathizes with Charles Dudley Warner in his complaint of the impossibility of bringing up a family properly with no rallying centre in the home unless it be to gather around a whole in the floor.

THE FAN.

BY JOSEPHINE HARPER.

IT is said that the fan had its origin in the East, where the terrestrial Paradise is supposed to have been situated. This is no doubt true, since the fan is one of the instruments of coquetry, and coquetry came into the world with the first woman created in the Garden of Eden. At first the natural leaf of the banana-tree and palm-tree were used for fans; later, these were made into various shapes and ornamented. The feathers of the peacock were used for fans centuries ago, and at one time in the history of the world this particular make of fan was a symbol of rank. At the present time, all classes of people are privileged to carry any kind of fan that suits the taste or pleases the fancy of the individual.

The fan was used extensively among the ancients in their sacred ceremonies. By their use the priests kept from pollution the animal sacrifices on the alters of the divinities for whom they officiated. The Chinese claim that an Empress of their country originated the fan and on this account was the only woman in the empire allowed by law to wear a fan, all others being devoted to sacred uses.

All kinds of materials have been and are used in the manufacture of fans with every conceivable style of decoration. Gold, silver, ivory, pearl, sandal-wood, the finest silk, and laces, are well-known materials used in fans. Painting, sculpture, carving, and embroidery form the decorations of the most beautiful as well as the most expensive fans.

In one of the museums of Europe can be seen a fan the ribs of which are of steel. On one side of the ribs, an epoch in the country's history is outlined in gold, the other is set with jewels.

A collection of historic fans is an interesting study; and could the fans speak, what tales they would unfold, state secrets reveal, unwritten history relate! It is even possible that some parts of history would be entirely changed could a certain fan but speak and tell the truth in the case. Even the fan of some friend, if closely questioned, might be induced to reveal secrets which the fair owner would rather should remain untold. The fan is an indicator of the character of the owner. If you disbelieve this statement, just watch the fans, how used and handled, at the next reception or concert you attend. Notice how some possessor of a fan in a public place fans not only himself, but every body within a radius of three or four feet, utterly regardless of the fact that he may by so doing give the old lady in front a stiff neck or hopelessly disarrange the bangs on the white brow of the stranger beside him.

Any one using a fan constantly or only occasionally should learn to use it in such a manner as not to discommode any one.

The fan has had its painters, sculptors, and carvers, its dramatists and poets, it has also had its essayists. The following is from the pen of Addison: "There is an infinite variety of motions to be made use of in the flutter of the fan. There is the angry flutter, the modest flutter, the timorous flutter, the confused flutter, the merry flutter, and the amorous flutter. Not to be tedious, there is scarcely any emotion of the mind which does not produce a suitable agitation of the fan. Insomuch that if I only see the fan of a disciplined lady, I know very well whether she laughs, frowns, or blushes. I have seen a fan so angry that it would have been dangerous for the absent lover who provoked it to have come within wind of it; and at other times so very languishing that I have been glad, for the lady's sake, the lover was a sufficient distance away. I need not add that a fan is a prude or a coquette, according to the nature of the person who bears it."

Social Side of the Farmer's Life.

The greatest drawback to a farmer in the West is the isolation or the enforced loneliness of his life. Man is a social animal who likes society or the companionship of his fellows, and will have it if possible. The Western farms will average perhaps a quarter section, which means that the farmer is on the average of half a mile distant from his nearest neighbor. The requirements of the farm make him a home-keeper and the more the stock interests are developed the more of a home-keeper he is compelled to be. The cows must be milked night and morning, the pigs fed, and in general the choring done. The farmer escapes this isolation to a certain extent by going to town once a week, generally on Saturday, and by meeting with his fellows off and on during the week in the way of business. His wife bears the greatest burden of isolation. Her domestic duties and her children keep her at home. She has none of the business of the farm to take her away, hence most farmers' wives suffer from the sense of loneliness, the lack of company of their own sex. It is this loneliness of the farm that drives so many farmer's sons and daughters into the cities, where if the living be poorer, the work harder, the comforts and conveniences of living far less, and the burdens of life much heavier, they at least have companionship, such as it is.

Everything that tends to develop the social side of the farmer's life, to break up this isolation and counteract this loneliness, tends to elevate and improve the farmer, tends to make farm life more desirable, farms worth more money, to counteract this movement which has been setting in so long from the farm to the city, and to make farm life what it should be, the most desirable life on this continent. If farm life had the social advantages which the city enjoys, or which farmers suppose the city enjoys, it would be eagerly sought for even by numbers of people who now prefer to live in the city. The development of the social life of the farm must be made by the farmers themselves. It must be a movement originating on the farm and conducted by the farm. The life of the grange is one expression of it; farmer's alliances, farmer's clubs, farmer's institutes, farmer's picnics, are other expressions. The farmers are beginning to find in themselves the society most congenial to their taste. We read accounts of picnics and harvest homes held in the state attended by 500, 1,000, and 1,500 farmers with their wives and children, where there is abundance of oratory, abundance of good cheer, abundance of games, recreation, and amusement without end. This is what it should be. The country church furnishes social enjoyment, but the farmer's life is broader than his church; political meetings add to the diversion, but no matter how strong a politician he may be he is a much broader man than his party. The farmer's club, if rightly conducted, takes in his wife, sons, and daughters as well. The farmer's picnic gives the wife and entire family an outing.

There should be in every township, and preferably at the center, a building large enough for social as well as political meetings, which should contain a farmer's library open at least once a week where the farmer could have access to the best literature. All these would be but movements in the lines of developing the social life of the farmer. Nothing will do so much to save the brightest of the boys and girls to the farm as the development of this social life. We know from experience something of the mental and social hunger which a boy feels from the time he is fifteen or sixteen years of age onward, his desire to know something more of the world on which he is entering and where he himself is to play his part.

Social life, the meeting with his fellows, he will have. It depends on the farmer himself what phase and form this social life will take. Everything that tends to bring the best class of farmers together with their wives and families tends to elevate farming and give it the standing it should have in the eyes of the farmers and in the eyes of the outside world.—*Wallace's Farmer.*

System on the Farm.

In every department of labor the essential to success is a systematic method. System is especially needed in farm work, because thrift of so many living things is in the power of the farmer. There should be a regular hour for feeding stock. Animals soon learn the hour for their meals when given regularly, and are impatient of delay. Bawling, bleating, or squealing for an hour before each meal does not hasten development of fat calves, lambs, or pigs. At other times the food is given to the animal not being hungry and not prepared to make the best use of it. There should be a certain hour at which to begin feeding in the morning and a time at which to quit feeding at night, or rather evening, for we don't believe in feeding after dark except in the shortest December days. The farmer who feeds his stock by lantern light during spring and fall months will be apt to get crops in late and pick corn till holidays. The family meals should not vary ten minutes from the specified time; neither should the men keep the meals waiting. Children should be off to school on time, neither too late or too early. They will be more apt to have their lessons on time if everything is regular at home. The work is so much easier to do when everyone knows his time and place; life is pleasanter, and happy times come oftener. System preserves health; for we know that worry kills more persons than disease.

Transplanting Trees.

It seems to be a very simple matter to transplant a tree. It is only to dig it up in one place, make a hole in the ground somewhere else, and set the tree in that. At least, this is the way some people appear to regard it.

Pruning the young trees prior to resetting is one of the most important things to attend to. A certain amount of sap is stored in the trunk and branches, which is to preserve life and furnish the supply for the first starting of new buds. Any wasteful evaporation of this should be checked. Pruning will do this, and will lessen the number of buds, and make more vigorous the growth of those which remain. Pruning of the roots is quite as important as pruning the head. All mangled roots should be trimmed by making a clean, fresh cut so that new fibrous roots will start out with a healthy growth. Prune from the first, so as to make a shapely tree, with an open and spreading head that will permit light and air to reach all the parts.

When digging the hole for the reception of the tree, have it large enough to permit putting all the roots in without doubling or cramping them in the least. Have some fine earth underneath, and cover with equally fine soil, so that the new roots as they start out will have good feeding ground in close proximity. Compact this earth by treading and get the tree well firmed in, so that the roots will not be disturbed even by a severe wind after they have begun to take hold. Mounding the earth about the trunk for the height of a few inches is also advisable, as it helps to steady it and insure an upright trunk. This mound may be left through the winter, but should be taken away early in the spring. Take time to plant each tree as if it was to be the only one, your sole reliance for fruit for years to come. In that way you will do much to insure that it will live, and there is not much satisfaction in planting only to see them die. Whether planting an orchard, or a few trees for combined pleasure and profit about the home place, it is important to have them start evenly. An open gap, showing that one or more of the trees have failed to live, makes an unsightly appearance. And even if you put another there, it is a long time before the growth will become uniform with the others. Use a little more time and care in the beginning, and you will certainly save trouble and annoyance later.—*Rural Canadian.*

Spring Enjoyment.

Spring is advancing so rapidly that it is difficult to find time for the recreation which one should take both as to matter of duty and as a means of enjoyment. As a source of this higher enjoyment of life, public parks have a great value to the dwellers in cities, and in the country the children, as well as those of larger growth, feel a strong temptation to wander amid the unfolding beauties of nature as spring opens. The farmer should not be so busy that he can not take some enjoyment out of this, the best time of the year. But it is hard to drop work and go picknicking when one's neighbors are rushing in their crops. Still he feels the need of recreation quite as much as the roving child or the inhabitant of the town, although he usually sets it aside as mere sentiment and drives his business on the farm, content with such contact with nature as he can have in the fields. There should, however, be times of relaxation and social enjoyment outside of the farm routine.

The month of May has a unique setting in poetry and song. May festivities are traditionally among the chief attractions of the year. The opening of spring should in some way promote home life and home enjoyments. It is a happy thought to have family anniversaries at this season when flowers and the fresh, bright, unfolding leaves are made to contribute their share to the enjoyment. During May every hour should not be expended in active labor. A day devoted to fishing or spent in the woods makes the active operations of farm life sweeter and affords relief to those who have preface lived a closely confined, indoors life all winter. Botanical excursions, fishing parties, family and neighborhood picnic, and restful visits are very helpful during the busy, rushing spring season.

The farmer's son should be taught to love farm life. The farmer's daughter should see her mother have some enjoyment other than that which is possible within the walls of the house. Both should know that there is some break in the daily grind of the household duties. There should be periods during the spring months never to be forgotten in subsequent years—periods of healthful recreation, quiet rest and exercise of youthful powers along the streams and in the groves of timber, and these occasional days spent in company with the older folks will be held in after life to be the best part of country living.

There is no temptation about the Jersey cow. The most confirmed gambler could scarcely devise any means by which to gamble on her. All her paths lead to sweetness, contentment, honest living, and broader thinking. The very sight of the pure, clean dairy, pungent with the aroma of the cooling milk in the darkling waters, is itself a sermon on honesty; while the tinkling of the tiny streams that purr around the tray of hard gold butter, and the molten gold of the yellow cream, is the music that accompanies the sermon. Follow her into the field, and unless your ancestors have thrown off on you terribly in the formation of your head, you will see life in all its beauty and truth; you will grow bigger and broader each day, as you gradually learn that the universe is immense, that God is infinitely great and you are infinitely small.

Calendar.

1896-97.
Fall Term—September 10th to December 19th.
Winter Term—January 5th to March 27th.
Spring Term—March 30th to June 10th.
June 10th, Commencement.
1897-98.
Fall Term—September 9th to December 15th.

To School Officers.

The College Loan Commissioner has funds now to invest in school district bonds at par. The law requires that no bonds be sold at par or less without being first offered to the State School Fund Commissioner and the State Agricultural College. Address

GENERAL LOCAL NOTES.

State Secretary Bayard of Topeka visits the officers of the Y. M. C. A. today.

Mrs. Barnard visited College last Saturday with her two daughters, now in classes.

Mark Wheeler, Fourth-year, enjoyed a visit from his mother and youngest brother the last of the week.

Miss Frank Daily of Bethany College, Lindsborg, and Miss Helen Amos of city visited College Tuesday.

Mr. Skenk, assistant in physics at the State Normal was about College last week in company of Ross Long, Fourth-year.

Prof. Hitchcock spent a portion of last week making collections in the southern part of the State for the botanical herbarium.

Messrs. C. V. Topping, B. A. Flack, W. A. Staatz, M. Ginder, J. Downley, Lee, A. Olson, all of Enterprise, visited College on Thursday.

L. J. Best, formerly of Beloit, Kans., who recently committed suicide at Beardown, Ark., was a member of the Board of Regents of this College in 1878.

Fourth-years, Second-years, and First-years have made their entries for field day in all the events. The contest will be held at the city park Monday afternoon, May 17th.

The University ball club is expected to play the K. A. C. team here, May 31st. It is to be hoped that our manager will play a club composed wholly of students at that time.

The College Male Octette made its first appearance in Chapel last Saturday afternoon. The hearty appreciation shown should encourage the boys to further musical study, for they certainly have good material.

The Kansas Society for Child-Study will hold its second annual meeting at Lawrence, May 13th to 15th. A good program has been prepared. All who plan to attend should notify the chairman of the local committee, Prof. A. S. Olin.

Mrs. Pickett, wife of Rev. J. E. Pickett, former pastor of the Christian Church of this city, and now of the Christian Church at Boulder, Colo., is visiting friends, and was in company with Mrs. Koller at the College Saturday afternoon.

The stockholders of the *Students' Herald* met on Tuesday evening last and elected the following officers for the next College year: H. M. Thomas, Editor-in-Chief; W. L. Hall, Literary Editor; Wm. Anderson and F. Zimmerman, Business Managers.

Mrs. Kedzie gave a demonstration lecture Friday evening at the Congregational Church on "Frozen Dainties." Ice cream and sherbet were made and served to the large audience. The receipts go to the benefit of the Young Peoples' Society of Christian Endeavor.

The Physics Department has received a Willyoung eight-inch-spark induction coil for X-ray purposes. It was tried on a hand, and yielded a good negative with an exposure of one minute, against an exposure of forty-five minutes required under the small coil formerly used.

The Chemical Department has sent out about 600 packages of beet seed for experimental planting in various parts of the State. Samples of the beets grown will be sent to the Department in the fall for test as to sugar content, which will be reported to the Department of Agriculture at Washington, under whose direction the experiments are to be conducted.

The War Department has issued an order detailing First Lieutenant Ralph Harrison, Second Cavalry, as Professor of Military Science and Tactics at this College to succeed Capt. Cavanaugh, who will be relieved September 1st at his own request. Capt. Cavanaugh will join his company in New York, and expects to be stationed at either Governor's Island, Fort Niagara, or Buffalo.

Prof. F. C. Sears, who was recently called from an assistant's position at the Kansas Agricultural College to be Professor of Agriculture in the Utah Agricultural College, has just issued a most useful bulletin on spraying. Prof. Sears' industry, as well as his thorough equipment for his work, will make him a useful man in his new place, and will eventually earn for him eminence.—*Kansas Farmer*.

Five members of the College Ball Club,—Menke, Noble, Wagner, Posten, and Piersol,—assisted by four of the old Manhattan team, defeated the Abilene team on Saturday afternoon by a score of 8 to 7. At the end of the sixth, the score stood 7 to 4 in favor of Abilene. Menke was put into the box, and struck out four men in that inning, Wagner dropping the ball on one strike out and failing to throw to first, where he could have easily retired the side. The home team scored twice in the eighth and twice in

the ninth, with only one man out, winning amidst great enthusiasm. Piersol made the longest hit of the season,—a long drive over center, on which he scored a home run. Posten was hit twice by a pitched ball, and was so bruised up that Dial, who was ill on the bench, was substituted for him at short in the ninth. Noble played a fine game at first. The teams played at Abilene this afternoon. Abilene won by a score of 13 to 10.

GRADUATES AND FORMER STUDENTS.

Inez Bishop, of Delphos, Second-year in 1891-2, is visiting with Prof. Mason.

Lucy Ellis, '95, moves from Marysville to Topeka, with address 607 West Sixth.

Nellie Burtner, Second-year in 1895-6, attended Chapel exercises Saturday afternoon.

W. T. Taylor, Fourth-year in 1893-4, was at College on Friday. He is working at carpentry at Onaga.

The term of service of D. W. Working, '88, as Secretary of Colorado Agricultural College ends with this year.

A son was born, May 6th, to E. J. Abell, '95, and Florence Quantic-Abell, student in 1891-2, at Scandia, where Mr. Abell is Principal of Schools.

The *Journal of Osteopathy* from the school at Kirksville, Mo., is received in magazine form. It is a handsome journal. M. F. Hulett, '93, is Treasurer of the Company, and C. M. T. Hulett, Fourth-year in 1878-9, is Secretary.

J. E. Payne, '87, and Mary Cottrell, '91, were married recently, according to the *Alma Enterprise*, and have gone to their home in Cheyenne Wells, Colo., where Mr. Payne is superintendent of the irrigation experiment station of Colorado Agricultural College.

D. G. Fairchild, '89, expects to be in Honolulu about June 1st, and in San Francisco about July 1st, unless he should accept a commission from the U. S. Department of Agriculture to make a collection of trees in Australia and New Zealand suited to the semi-arid regions of America.

SEVENTH

DIVISION

THIRD-YEAR CLASS

CHAPEL

SATURDAY, MAY 8, 1897

MUSIC—CADET BAND

MARY MINIS	OBJECTS OF EDUCATION
O. R. SMITH	THE DIFFERENCE
GERTRUDE RHODES	FADS
J. M. PIERCE	GAMBLING
JUNIE PARKS	MENTAL CULTURE

MUSIC

OCTETTE—ROCKING ON THE BILLOWS

NORA REED	PERPETUITY OF THE REPUBLIC
H. W. ROGLER	KANSAS' GREATEST NEED
ALICE MELTON	OUR COUNTRY'S MONUMENTS
SCHUYLER NICHOLS	CUSTOM
HATTIE NICHOLS	A SCENE FROM WESTERN LIFE

Horticultural Department Notes.

It is unnecessary to call attention to the number and beauty of the flowering shrubs on the grounds, and impossible to give them here the "personal mention" they deserve.

The seedlings springing up everywhere in groves and arboretum remind one that the last was pre-eminently a fruiting year, yet this one bids fair to excel even that in blossoms.

Many of the ornamental trees on the grounds, chiefly hackberry, elm, ash, and honey locust, have been attacked by canker worms and are now undergoing the treatment already given to the orchards, viz. a thorough spraying of Paris green.

The tomato crop in House No. 5, which began ripening the last of February, continues to be quite an attraction. Already something like two hundred pounds of fruit have been picked.

Owing to some combination of circumstances, all the plants in the station forcing and propagating houses have done unusually well the past winter.

Mr. Baxter has lately put up for members of last winter's Floriculture Class several baskets of handsome young plants, to which their work in the green house entitled them.

About 8000 apple grafts, made by the winter term industrial students, have been planted this spring.

Vacancies in the experiment orchard have been filled with Hungarian apples received from the Department of Agriculture, 57 trees in all, representing about half as many varieties.

The sub-station work of the U. S. Division of Forestry in charge of this department has been even more extensive this year than last. Already over 27,000 trees have been received, besides 5000 furnished here from last year's planting, and there are more to come. Nearly 20,000 trees have been or will be set in new plantation on the site of the old orchard at the West Farm. The remainder have been used to replace losses from last year's planting, or are being

put into nursery rows for future use. In addition to the tree planting nearly a hundred lots of seeds deciduous and coniferous have been planted.

T. W. MORSE.

The Senior Girls' "Longfellow" Party.

Last Thursday evening, as twilight shadows were growing into darkness in the home of Professor and Mrs. Olin, the house was suddenly and somehow filled with happy, laughing girls. They came laden with lilac blossoms, which were wreathed about the large portrait of Longfellow, and they announced that a "Longfellow evening" must be participated in by all present.

Every girl in some way represented the title of one of Longfellow's poems, and her representation had to be guessed and the name of the poem written on the cards provided. From the simple letter "B," which one girl was bright enough to "wear," to the little "old lady," whose twinkling eyes pretended to bemoan "My Lost Youth," all the representations showed plainly that these girls belong to the class which is studying nineteenth century Literature. Dainty refreshments appeared as if by magic, and then each member of the merry company gave some anecdote or fact regarding the life or the works of Longfellow.

Professor Olin added a little talk on the helpfulness of poetry in rounding out a cultured life, and the singers told in sweetest strains "The Day is Done," when the bright company disappeared as suddenly as it had come. Such pleasant gatherings help to make up the happiness of a teacher's life, and girls who can plan and carry out such enjoyable and profitable meetings have learned one important lesson in the great school of life; for in the making of happiness, "Life's golden fruit is shed."

The Kold Biskit Party.

The Seniors were surprised not long since by receiving the following invitation:—

"The Kold Biskit Klub will entertain the Class of '97 at the residence of Dr. Brady on the evening of May 3rd, 1897."

They were mystified at first, but the boys, true to Senior nature, were noticed to be very careful and diligent in the use of their note-books and pencils and most of them were soon wearing a look of mysterious satisfaction.

The evening was an ideal one for the occasion, and at an early hour small groups began to arrive at home of Dr. Brady, where they were welcomed by a number of friends who had formerly been members of the class. Ere long the house was full of merry young people who were enjoying themselves as only Seniors can. The early part of the evening was passed in games and social greetings. Later the photographer appeared and was soon busy and as a result we shall have another souvenir of the occasion. Refreshments were then served by the Klub in a manner that did credit to its members in more ways than one. After another lapse of time well employed, the entertained began to bid good-night to the entertainers, each and all agreeing the party given by the Kold Biskits was one of the most enjoyable features of their College course. C. D. A.

State Appropriations for the College.

Question has from time to time been raised as to the actual appropriations made for improvements and expenses of the Kansas State Agricultural College since its opening in 1863. The following statement, taken from the legislative acts themselves, may be of interest, not only for the total amounts, but for the record of gradual progress in the growth of the institution under its three Presidents. In the earlier years, appropriations were chiefly for salaries of professors and other current expenses. In later years, nothing has gone to salaries and little to any current expenses, while the additions to apparatus made from the National funds have more than equalled amounts previously paid by the State for salaries. The figures below do not include the annual appropriation of about \$1500 for per diem and mileage of the Board of Regents, nor the commission paid to Land Agents:

UNDER PRESIDENT DENISON, 1863-73.

1864, Annual Session	\$ 2,700.00
1865, " "	3,200.00
1866, " "	5,500.00
1867, " "	12,700.00
1868, " "	8,715.00
1869, " "	8,819.00
1872, " "	15,000.00
1873, " "	23,000.00
Total	\$ 79,634.00

UNDER PRESIDENT ANDERSON, 1873-79.

1874, Annual Session	\$ 28,083.23
1875, " "	13,675.24
1876, " "	15,300.00
1877, Biennial	20,729.09
1879, " "	
Total	\$ 77,787.56

UNDER PRESIDENT FAIRCHILD, 1879-97.

1881, Biennial Session	\$ 52,729.09
1883, " "	25,500.00
1885, " "	22,013.44
1887, " "	22,128.79
1889, " "	19,325.91
1891, " "	13,166.75
1893, " "	78,525.00
1895, " "	27,805.00
1897, " "	50,300.00
Total	\$ 311,493.98

Grand total, 34 years, \$469,460.91. The total value of property at the College, including improvements provided for in the appropriation of 1897, is fully \$450,000.

COLLEGE ORGANIZATIONS.

Student editors.—Philip Fox, Gertrude Lyman, R. J. Peck.

Y. M. C. A.—President, G. D. Hulett, '98; Vice-President, E. O. Farrar; Recording Secretary, C. R. Nelson, 1900; Corresponding Secretary, J. M. Pierce, '98; Treasurer, C. H. Lehmkuhl, '99.

Y. W. C. A.—President, Nora Reed; Vice-President, Ella Weeks; Recording Secretary, Louise Maelzer; Corresponding Secretary, Maggie Minis; Treasurer, Myrtle Harner.

Alpha Beta Society—President, Grace Dille; Vice-President, Guy Hulett; Recording Secretary, H. A. Martin; Corresponding Secretary, Inez Manchester; Treasurer, Nora Reed; Critic, R. W. Clothier; Marshal, Laura Pritchard. Meets every Saturday afternoon in South Society hall.

Ionian Society—President, Margaret Correll; Vice-President, Ary Johnson; Recording Secretary, Phoebe Smith; Corresponding Secretary, Grace Stokes; Treasurer, Hilda Olson; Critic, Gertrude Lyman; Marshal, Maude Currie. Meets every Saturday afternoon in North Society hall.

Webster Society—President, Mark Wheeler; Vice-President, T. W. Allison; Recording Secretary, J. W. Bower; Corresponding Secretary, C. B. White; Treasurer, H. P. Nelson; Critic, W. T. Pope; Marshal, T. C. Melbert; Board of Directors, Schuyler Nichols, J. A. Conover, George Martinson, L. E. Potter, H. R. Webster. Meets every Saturday evening in South Society Hall.

Hamilton Society—President, O. E. Noble; Vice-President, G. F. Farley; Recording Secretary, O. R. Smith; Corresponding Secretary, W. M. Poole; Treasurer, A. J. Leonard; Critic, C. B. Ingman; Marshal, Wm. Anderson; Board of Directors, V. Maelzer, M. C. Adams, L. A. Fitz, H. W. Rogler, M. W. Sanderson. Meets Saturday evening in North Society Hall.

May 8th.

President Correll called the Ionians together at the usual hour. Bonnie Adams led in prayer. Olive Long gave an excellent reading, "A Man without a Country." Extemporaneous speaking, Maude Barnes, Committee. The following subjects were discussed: "Styles," Tacy Stokes; "Is Our Society Deteriorating?" Minnie Spohr; "Is Our Society Improving?" Winnifred Houghton; "Should Our Society Room be Decorated?" Bonnie Adams. A good edition of the Oracle was then presented by Jeanette Perry with the motto: "One stroke will not fell an oak." The contributions were as follows: Editorial, "Paragraph on Pockets," "A Mid-night Escapade," "After the Shower," "Advice to Students in Entomology," "Replies not always Answers," "How I hung My First May Basket," "A Topeka Girl's Composition on Boys." Harriet Vandivert then gave a very interesting discussion, "Wit and Humor." After the usual business, the Society adjourned.

F. C.

May 8th.

The Websters assembled promptly at the summons of President Wheeler. Mr. Patten led the Society in prayer. The debate on the subject, "Resolved, that strikes on the whole have been a benefit to the laboring class," was led by Mr. S. J. Meyer. Mr. T. M. Robertson supported the negative. The Reporter, with Mr. H. J. Robison as editor, announced as its motto, "Time to unfold, and devotion to the ideal are all that are needed to bring in the day of light." The paper was well received. After some good music by Messrs. Yard and Stokley, Mr. Mark Wheeler rendered a selection from Byron and one from Longfellow, which brought out very strongly the contrast in tone of the work of the two poets. Miss Rhodes responded to the request to favor us with some music. Under the head of "Senior Prognostications," Mr. J. W. Rhodes predicted some very interesting and probable things that our Seniors will be found doing in future years. Miss Tacy Stokes entertained us with a piano solo, and the ladies were given a vote of thanks for their kindness. After recess, Mr. Zimmerman introduced Mr. Pratt, who impersonated an "Irishman from Kilarney" to the entire satisfaction of his audience. This was followed by an address to the Seniors, delivered by Harry Webster. The Critic then drew us over the coals, and the Society got down to business.

C. B. W.

May 8th.

It was 3 P. M. when President Dille called the Alpha Betas to order. The program was opened by a quartette composed of Misses Agnew and Blachly and Messrs. Hulett and Jolly. J. M. Westgate led in devotion. In an essay, Miss Tappan presented some good thoughts as to what we shall read. The ideas were good and well connected. Mr. Hulett read an extract from the "Pickwick Papers." The selection as well as the reading was enjoyed. The humorous manner in which L. B. Jolley gave his declamation made up for its shortness. In the debate, J. M. Westgate and W. A. McCullough and also their listeners became interested in the question, "Whether the Jew or the Greek has filled the more important mission." Mr. Westgate developed his argument along commercial and moral lines; to the Jew, we are indebted for our great credit system and for our religion; Mr. McCullough referred to the intellectual life of the Greeks, and the influence of the old philosophers and artists; to them we are largely indebted for our forms of government. The profusion of May baskets with which the First Division of the Gleaner was decorated almost hid the editor, but the spirited manner in which it was read told us that Kate Zimmerman was behind the stand. Rules were suspended, and Miss Havens and Mrs. Mason gave the Society encouraging words. After recess, Miss Mather gave a pretty guitar solo. Especially lively and interesting was the extemporaneous speaking, and also the business session, after which Society adjourned.

I. M.

May 8th.

The Hamilton Society was called to order by President Noble. The roll call showed a fairly good attendance. Prayer, W. L. Hall. Mark Faris gave an interesting declamation. Z. Z. Zabriskie read an essay on money. The debate, question, "Resolved, that there is more pleasure in pursuit than possession," was affirmed by Wm. Anderson and L. R. Fitz. They held that all the pleasure that there is in anything is in the pursuit of it. They claimed that the pleasure of an education was all in the school days, and if you stop when you are through school, then will your pleasures end. Everything else is the same

way. M. W. Sanderson and J. M. Yard argued that the only reason we pursue anything is for the pleasure of possessing it. They applied this to the business man, who works all the fore part of his life in order to possess wealth and have pleasure in his old days. The same in the religious world. The society decided in favor of the negative. E. A. Rhoades gave a humorous declamation, "The Steam Choir." Bryant Pool read a selection entitled The Witness. After recess Z. L. Bliss recited part of Charles Brown's Lecture. The May Basket number of the Recorder was given by E. L. Smith, Motto—"Push." Harry Pratt gave one of his impersonations. The Society, knowing the musical talent of the lady visitors, called on Miss Rhodes for music, who responded with an excellent piano solo. The Society showed their appreciation by a hearty encore. Owing to the business that had to be attended to, the remainder of the program was dropped and the business session lasted until adjournment.

W. P.

Left over from last week for want of room.

The Y. W. C. A. is again in good working order, with the new officers as follows: President, Nora Reed; Vice-President, Ella Weeks; Recording Secretary, Louise Maelzer; Corresponding Secretary, Margaret Minis; Treasurer, Myrtle Harner. Girls, we want to make the last half of this term beneficial to all. Let us be sincere in this work. See that all the girls have an invitation to come to our meetings Saturday afternoon, after fifth hour, and be sure to be there yourself.

M. M.

May 1st.

Although the day could be enjoyed a great deal better outside than in, a goodly number of Ionians met in the Hall to hold their May-day session. The business part of the program consisted chiefly of financial affairs that always follow an annual. Our Critic's report was especially interesting, though each Ionian held her breath lest she, too, might come in for a share of criticism. The program was as follows: Essay, Miss Maude Currie; vocal solo, Miss Mary McKane, with Miss Stingley's guitar accompaniment. Debate, "Oratory has had more influence over people than writing." Affirmative, Misses Scheck and Williams; negative, Misses Asbury and Locke. Instrumental solo, Miss Gertrude Rhodes. Oracle, Miss Jennette Carpenter.

G. S.

May 1st.

When Vice-President Farley rapped the Society to order, he saw before him an unusually large number of empty chairs. Possibly the fact that it was the first evening in May will explain why many of our members were not found in their accustomed places. M. W. Sanderson led in devotion. V. C. Hagman showed that he realized the value of Society work by taking the necessary steps to make him a Hamilton. The program was very short, as many of the members assigned for duty did not appear. In a well-written oration, C. B. Ingman presented some good thoughts on the side of "Conservatism," as compared with "Radicalism." The debate on the question, "Resolved, that civil service rules should be applied to appointment of regents of government educational institutions," was ably argued on both sides. W. V. Hardy and H. W. Johnston appeared on the affirmative, while O. R. Smith and D. E. Dodds presented some good arguments on the negative. During the first part of the session, the Society was favored with a visit by several young ladies, accompanied by Misses Harper and Rupp. The business session was taken up with trials of several negligent and un-dutiful members.

A. D. W.

May 1st.

When President Wheeler called the Society to order, not many Websters were present. Mr. Robertson led the Society in prayer. Debate followed on the subject, "Resolved, that the Telescope has been of more benefit to man than the Microscope." B. R. Huil, seconded by W. B. Chase, ably maintained the affirmative, enumerating the many uses of the telescope, notably its use in navigation and surveying. R. J. Peck, with T. W. Allison as second, presented the negative side of the question. They reminded us of the many sciences which the microscope has made possible, and of its use by physicians and in schools and colleges. The negative won the debate. Mr. H. P. Nelson favored the Society with some excellent music, after which Mr. J. E. Trembly presented the Webster Recorder, taking for his motto, "We are Looking up for Room to Roost." The paper was an excellent one. A number of lady visitors being present, Miss Huntress kindly favored us with a piano solo. Miss Harper and Miss Rupp were asked to speak, and gave us words of cheer and encouragement. The Society gave the ladies a vote of thanks for their kindness and for the beautiful flowers which they brought. On account of the press of business, the rest of the program was passed.

C. B. W.

May 1st.

Shortly after 2 o'clock President Dille called the Alpha Betas to order. Every feature of the session was a success unless it was the workings of the kodak. Misses Gilkerson and Wilder entertained with a piano duet. After devotion by Lucy Cottrell, Marshal Pritchard initiated S. B. McAninch. H. A. Martin read an essay on "The Press as an Educator," which was well composed. Very interesting was the second chapter of a story written by Myrtle Mather, and read by Anna Streeter. A vocal solo by Miss Agnew was appreciatively applauded. "Snobbery of Education" was a selection read by Marion Gilkerson, and deserves praise not only for being a good selection, but for being well read. Mr. Rogler's violin solo was enjoyed by the Society. The question for debate was one of those see-saw questions, but was interestingly presented. R. W. Clothier, in the absence of R. E. Eastman, and Jennie Ridenour affirmed that character has more influence than talent, while Nora Reed and Lizzie Agnew presented the

negative. After a vocal trio composed of Misses Amos and Barnard and Edgar Amos, the Fourth Division of the Gleaner was read by Lucy Cottrell. The after-recess session was shorter than usual. Business was transacted and Society adjourned.

I. M.

Accessions to the Library.

Musical Hints for the Millions, Merz.
Horses, Asses, Zebras, Mules, and Mule Breeding Tegetmeier & Southland.
John Ruskin, Vida D. Scudder.
Annual Catalogue of Books, 1896. [American and English.]
Books and Their Makers During the Middle Ages, George H. Putnam.
Riches of Chaucer, Clarke.
Elements of Geology, Le Conte.
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In agricultural implements, we have, within the last fifty years, made wonderful progress; a wonderful advance in the way of improvement. In the way of farming one man can now easily do the work of four men, and we have been hunting a market for them among all the civilized nations, and teach the people of those countries to use them. The scrapers and mowers, the improvements in plows, and all the implements in use, have been correspondingly improved. These improved implements have gone freely among the farmers of the Old World for sale, and the people of the old countries have been instructed how to use them, and they have slowly been put in use and doing their work in supplying food in the countries where they have been sold. This will, of course, suggest the Chicago *Drovers' Journal*, diminish the demand upon us. But farming must be kept up, for it is the grand pillar upon which the whole structure of civilization rests.

Give the subject of farming the same thought, the same study, the same capital, the same diligence, the same perseverance, and the same push that is required to succeed in other trades or employments, and you have the key to the situation. To make farming pay, it must have your undivided personal attention. It will not mix with any other occupation. You ought to be found at your place of business every working day of the year, as nearly as possible, and if you succeed you will find something that ought to be attended to. You must study to make every acre—yea, every square rod—of land as productive as you can. It will not do to have one-half of the farm in paying crops and the other neglected and allowed to grow noxious weeds, sprouts, and briars, or even a half stand of grass. Every acre should be made to bring in its share of profit.

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THE WORK IN THE FORESTRY STATION.

BY W. L. HALL, '98.

THERE have been received this spring from various northern nurseries some thirty-thousand trees to continue the planting begun last year by the Division of Forestry upon its station on the old College farm. The species so far received are Red Cedar, Scotch and Austrian Pine, Douglas Spruce, Fir, Larch, Aspen, Birch, White Elm, Catalpa, and Green Ash, with White Spruce and Pondurosa Pine yet to come.

During the latter part of the winter a part of the maple grove was marked off into sixteen strips: four strips being two rods wide; four, one and one-half rods wide; four, one rod wide; and four, one half rod wide. Alternating strips were then cleared and half of each cleared strip was grubbed and ploughed. The cleared strips have been planted (four feet by four feet) with Scotch Pines with a light admixture of Green Ash. The ploughed halves will be cultivated and a comparison drawn between these two processes of renewing forests by strip planting.

The greater part of the trees received have been used in setting a four-acre tract, which was divided into four equal plats, each 175½ feet by 248 feet. In these a mixture of species has been set in spaces three feet apart. A majority of the trees are rapid-growing, light-demanding kinds which will act as nurse-trees for the slower-growing, longer-lived kinds which are expected to become finally the standard crop. The plats are designated as A, B, C, and D, and a different plan has been followed in the planting of each.

In Plat A., Artemisia has been used as the nurse crop. Alternate rows were planted with it, and alternate spaces of the remaining rows. It thus furnishes three-fourths of the stock. In the remaining spaces, White Elm, Scotch Pine, and White Spruce follow regularly except that every eighth space in every eighth row is filled by an oak. The plan used is as follows:

PLAT A.	
A A A A A A A A	A=Artemisia.....3630
A O A P A S A E	O=Oak.....75
A A A A A A A A	P=Scotch Pine.....328
A P A S A E A P	S=White Spruce.....403
A A A A A A A A	E=White Elm.....404
A S A E A P A S	
A A A A A A A A	
A E A P A S A E	Per acre, 4840

In Plat B., Aspen (*Populus tremuloides*) forms the nurse crop, and is set as the Artemisia in Plat A. For the more valuable species American Larch, Red Cedar, Oak, Pondurosa Pine, and Douglas Spruce were planted. The hardest and best adapted species will finally predominate and form the standard crop. As to which it will be, is a matter of experimental interest.

PLAT B.	
A D A L A P A L	A=Aspen.....3630
A A A A A A A A	L=Larch.....555
A O A P A L A C	C=Red Cedar.....202
A A A A A A A A	O=Oak.....50
A P A L A C A L	P=Pondurosa Pine.....202
A A A A A A A A	D=Douglas Pine.....201
A L A C A L A D	
A A A A A A A A	4840
A C A L A D A L	
A A A A A A A A	
A L A D A L A P	
A A A A A A A A	

Birch (*Betula lutea*) and Aspen have been introduced in Plat C. as the nurse crop, furnishing together the setting corresponding to the Artemisia in Plat A and the Aspen in Plat B. The remaining spaces are filled regularly with Green Ash, Austrian Pine, Catalpa, and Douglas Spruce, except that Oak takes every eighth space in every twelfth row. It is expected that Aspen and Birch will give the best growth at first, and to be removed after a few years to make room for the Catalpa, Ash and Oak. The Pine and Spruce will make the slowest growth at first, but will finally overtake the rest and become the ruling species.

PLAT C.	
B A A B	B=Birch.....1815
A D B P	A=Aspen.....1815
B B A A	O=Oak.....50
A F B C	F=Green Ash.....252
B A A B	C=Catalpa.....302
A D B P	D=Douglas Spruce.....303
B B A A	P=Austrian Pine.....303
A O B C	4840

Plat D. has the greatest diversity of species. Artemisia, Aspen, and Birch are all used as dependent sorts. These will make the leading growth for the first few years and furnish the requirements as to protection and shade for the other kinds. Later, these will be succeeded by the Elm, Catalpa, and Cedar, which in turn will nurse the Pine, Larch, and Fir during their shade-demanding period and finally

be succeeded by them as the standard crop of mature growth.

PLAT D.	
S E S B S E S B	S=Aspen.....605
B R B F B R B F	B=Birch.....2117
B A B A B A B A	A=Artemisia.....605
B P B L B P B L	E=White Elm.....151
S B S C S B S C	C=Catalpa.....151
B R B F B R B F	R=Red Cedar.....303
B A B A B A B A	P=Pondurosa Pine.....302
B P B L B P B L	L=Larch.....303
	F=Fir.....303
	4840

The Red Cedar, Pondurosa and Austrian Pines, White and Douglas spruces, and the Fir will not be planted for a year or two, because it will take that time for the other kinds to furnish the shade necessary for their early growth. These will be grown in nursery rows until the time of planting. Some two thousand have been planted under frames so that they can be given shade as required. Especially good results are hoped for from this treatment. The favorable season has facilitated the planting so much that the prospect of a fair stand and a vigorous start is very good.

TEACHING PHYSICS.

BY PROF. E. R. NICHOLS.

IT is impracticable if not impossible to arrange a course of study so that a student need take nothing on faith, so that he could prove all things as fast as needed. We necessarily use much of the machinery of mind and matter before we can know the principles upon which the working of the machinery depends. As our arithmetics are arranged, one must take for granted most of the principles of geometry. In the same way, many of us are teaching physics not only elementary but advanced, without the student having a knowledge of the underlying mathematical principles.

The tendency of all sciences, especially the physical sciences, is to become more and more exact, more and more mathematical. Astronomy might be defined as the mechanics of masses; physics, the mechanics of molecules; and chemistry, the mechanics of atoms. It may be necessary soon to include heat, light, electricity, and magnetism under wave motion, defined as the mechanics of the ether.

Much of the claim of mathematics is no doubt due to its exactness. Any approach toward the same exactness is desirable in other subjects. In geometry, for example, the most exact of all the divisions of mathematics, one of five reasons may be given for each statement: definition, axiom, hypothesis, construction, or previous proposition. In physics, one of four words may be used to explain a statement: definition, experiment, mathematics, or hypothesis. One need not follow each statement in physics as in geometry with a reason, but it is well to do so frequently that the students may learn to look carefully for the source of information. Text-books are not careful to distinguish between experimental and mathematical results, and frequently it is difficult to tell whether a statement is a definition, an hypothesis or something actually proved either by experiment or by mathematical calculation.

Flower Beds on the Lawn.

Place the larger beds on those parts of the lawn where they will be well supported by ample surrounding grass; in adorning the smaller grass plats near the house, make the beds of a size that will leave three times, or upwards, as that occupied by the flowers. This principle of having the brighter colors as found in flowers subordinate to green, that is less gaudy, is illustrated in other ways. Take a rosebush, and how needful is the foliage to properly offset the brilliancy of the bloom. We may admire the double flowering plum that shows only bloom and no foliage in the spring, but after all, it is not so reposeful in effect; it does not satisfy the eye as do the roses that come later, surrounded by masses of handsome leaves.

Another principle of equal importance with the proper proportion of flowers and lawn in producing repose, is that of openness of center in grass plats. There can be no grand landscape effect without an open lawn effect, which indeed may be considered the keynote of beautiful landscapes, whether natural or made by planting. It is seldom the case that any grassy area, however small, will appear as well, with the center occupied with flowers, shrubs, or other adornments, as if the same is kept clear of aught else but lawn.—*Vick's Magazine for May.*

Diversified Farming.

There is an old saying about the danger of carrying all the eggs to market in one basket. It is supposed to signify the danger of depending solely on one thing—the lack of wisdom of being prepared for emergencies. The farmer who pins his faith to one crop and intends to make it his main dependence, in these days of strong competition, runs unwise risks. Where a farmer has made a special study of any one line of agriculture, and has had practical experience that entitles him to be classed as an expert, he can no doubt, if he gives business attention, make his calling a profitable one. This is generally the case where the farmer turns his attention to dairy farming. Even at this business, though, he must depend on the favorable and unfavorable seasons, he must have a crop ready to supplement the pasture should a drought prevail. There must be food saved and got ready for winter use, and quality and quantity is desirable, and to be ready with as little cost as possible. There are many other considerations and conditions that constantly call for good judgment, in which strict economy plays an important part. The dairy farmer soon learns that methods that economize in every way, except in giving a full supply of food, is the only road to success. There is always a ready demand for milk and good dairy products. These products are not the result of mere haphazard methods. The dairy farmer knows that he must have cows that will yield a profit. His aim is to keep only such. Everything on the farm is managed with the one idea, that of securing results for the dairy.

Another farmer may turn his attention on the farm in another direction; he may, for instance, make a specialty of potatoes. With such a crop he, perhaps, may have more to contend with than the dairy farmer. The season may be too wet or too dry, the potato bugs may be unusually destructive, the tubers may rot badly. If any of these conditions prevail, the result may be such as to cause loss. The same degree of unfavorable conditions and results are just as likely to occur to some other crops. That all kinds of farm products are, however, likely to result unfavorably in one season is quite impossible. The farmer who, therefore, follows a method of diversified farming need not have to run the risk of carrying his eggs to market in one basket; does not have to depend upon one crop. If one product is a failure, he has other resources to draw from.

Another advantage of diversified farming is the fact that among the various crops there is generally one that is in demand, so that in alternate seasons, as they come and go, the farmer may have some product that will bring ready cash.

The resources of the farm are too great to be confined to any one thing as a specialty. The farm that makes a specialty of any one thing, as before stated, must be managed by an expert, and even then great risks are run, generally speaking.

When there are yearly great object-lessons to prove that there is as much in the farmer and his methods as there is in the farm, people should hesitate before declaring that farming does not pay.

Instances can be pointed out where a farm for years was managed with loss, until it was finally sold for taxes. The farm was run down, fields and fence corners presenting an unsightly appearance with rank growing weeds and shrubs. Finally a farmer took possession, and with his practical plans and energetic efforts soon made the farm a paying one, and one that its very appearance plainly pictured its thriftiness. One man failed to make the farm pay, but another found little trouble in bringing the farm up to a profitable return. These facts plainly prove the farm in one instance was not properly managed. Whenever the farm does not pay, the farmer should investigate the reasons. He should know which crops are paying him, he should try newer and better methods, he should study to find out wherein lies his lack of success, citing the fact that there are many others who, with apparently no better farms, do make their farming pay and are yearly adding to the attractions of their homes. Take advantage of all the farm's wonderful resources. There are many crops that can be raised that have never been tried.

Diversified farming on small farms will produce astonishing results for those who have never tried such methods. It is reported that a Kansas preacher recently said to his congregation that "the trouble with farming is that you farm too much land to little." This is too often the case. Farmers, generally speaking, do not seem to comprehend that making ground richer and working it more thoroughly will bring better results than half manured and indifferently cultured land will. In other words, if the amount of manure a farmer has at his disposal is sufficient for ten acres of land only to get good results, what is to be gained by trying to make it go over twenty acres. Nothing. In fact, the farmer under such circumstances will spread the manure on the twenty acres, and will not get any greater yield than he would if it had all been used on the ten acres.

The ten acres could be made to produce as much as the twenty acres by using the fertilizer, the quality of the products would be superior, and fully one-half less labor in cultivating and harvesting the crop would be required.

How is a farmer to know which crops pay best unless he tries them? How is he to know anything about it by guessing what it costs to produce any crop?

A little intelligent experimenting in the direction of finding out what crops do best on the farm should receive attention. Once known, there need be

no reason why farming should be carried on at a loss. There are entirely too many farms that are managed, or rather mismanaged, after obsolete methods. Prejudice is a tight brake on progress, and especially so in farming. The progressive farmer of today recognizes the great evolution that has taken place in farming methods. He knows competition is the life of trade in all occupations. That of farming is no exception. The farmer who follows old-time methods cannot compete with those who keep pace with agriculture's great strides of advancement.

Our experiment stations, agricultural colleges, and farmers' institutes are furnishing almost daily very valuable information for farmers. Those who are eager to secure information are those who progress. No man can become too well posted regarding his occupation, and no matter what it is, there is always something to be learned.

There will always be good farmers, and also poor farmers. There will always be room for more good ones. Ambition and energy can accomplish seemingly impossible things. No farmer need be completely discouraged, and if he has proper ambition and energy, he will rarely find conditions about him to make him despondent.

The one aim should be to produce better crops on a less number of acres. Make every year an improvement on the former one. Unprofitable stock should be weeded out and better stock take its place.—*Baltimore Sun.*

"Get Up and Dust."

You must do it. This an age of progress, an age of thought, an age of industry, and the farmer who has not discovered that fact had better be doing so or he will wake up some fine morning and find that the procession has passed by.

Time was when the farmer could send himself forward with a rush and a jump for six months, then idle away the other six months of the year and still exist, but that time is gone, let us hope never to return. Time was when he could spend the sunshine in getting together a few articles of food and clothing and during the stormy season sit down in his den as it were and suck his paw, like a grizzly bear, until the sunshine drove him out once more.

But the days of hibernation have gone, and in their place have come times when men who lay honorable claim to being farmers seek employment for both mind and body. True, the rustic grizzly bear species has not become extinct, for you can see his tracks and hear his growl and once in a while catch a glimpse of his shaggy head, but he is becoming less numerous each decade, and it is to be hoped that "The place that knoweth him now shall shortly know him no more forever."

When you pass along through life and see a farm with fence corners all filled with bushes, grubs, and briars, you may be sure he lives on that farm. That badly wrecked fence and that tumble-down shed attest his proximity to the place, and those shivering horses in that log stable with unstripped cracks half a foot wide, give unmistakable evidence of his presence not far away. Travel on to the court house, and you will see his shaggy form and hear his vindictive growl.

The judge calls the case of Smith versus Jones, and we soon discover a grey-haired quarrel over a line fence, a fifty-cent pig, or an outlet to a pool of water that is breeding disease and pestilence all over the neighborhood. He excites no sympathy, and asks none. He stands on what he regards as his rights without regard to the rights of others, and spurns the advice of lawyers, jury, and judge to compromise the case and have no further quarrel with his neighbor.

But he is passing away, and in his place we see the man with a mind. Brawn is going down before brain. The genus coon hunter is giving way for the seeker of knowledge. The rank-scented skunk-hunting denizen in rags and tags is making room for the keen-eyed young man who drives three miles every day to the graded school, who is determined to seek knowledge while youth and health and vigor and ambition are his; who is proud of his occupation and of whom everybody is proud; who knows no such thing as a line which separates the prejudice of town and country; for he has so many friends in both town and country that he has no time to spend trying to pick out the faults of either. He early discovers that in order to keep up with the times and progress of the age it is necessary for him to "get up and dust," and dust he does, to the great discomfiture of the chronic croaker, the garrulous growler, who never sees anything good in anybody, but who, like the vulture, is always seeking for the foulest carcass and devouring it with great gusto.

Every month in the year, it seems to me, opens up some new field along the line of agriculture in which the up-to-date young man or woman may find agreeable and lucrative employment. There is no avocation in life over which a man is such a lord supreme as farming, if it be his chosen occupation, and no place where exists such a vast expanse filled by unknown facts and untried truths, and the certain effect of the broader development of thought, the wider expansion of mind resulting from the education of the farmer's sons and daughters will be such an elevation of the farmer and his business as will surprise even those whose hopes have been the highest.

Just now the eyes of the whole world are turned upon that subtle fluid, electricity, which is exciting so much interest and attention. In Germany, recently, in a road trial, a farm wagon was made to travel at the rate of fifteen miles an hour with nothing propelling it except this invisible wonder. How long will it be until such a thing as transportation on country roads by electricity will be not only possible,

but practicable? How long will it be until the farmer can harness up lightning and speed away to the school, the church, the tax collectors?

Not long, I fancy, and the thing to do is to get up and dust and keep up. Take time by the forelock, and bid it come along. "Drive thy business, let not thy business drive thee."

Do not waste your time, young man or young woman, on the farm delying into the museum of the past. It is gone, and you cannot bring it back. Love it for being the age in which your ancestors lived, but do not live there yourself.

"The good old times" of which we hear produced some great men and women, but the age in which you are to make your mark is yet to come; therefore sit not down on a stone by the wayside and bewail your lot or make faces at the world as it goes by, but work up a smile and see how quickly you will meet a smile. Move along with the world. Let the lag-gard who will stay behind, but you keep abreast of the age. Get up and dust.—*C. A. Robinson, in Farmers' Guide.*

The Passing of the Locomotive.

There is something almost pathetic in the spectacle of the steam locomotive engaged in a hopeless fight with the all-conquering trolley. We can all remember Mr. Ruskin's diatribe against railways, and there are some of us who can go back to a day when it was a distinction to have been a European traveler. A man who had made the grand tour was familiarly known as a Hadji, and presumably entitled to the privilege of wearing a green turban, if it so pleased him. And then came steam, which changed all that; and now it is electricity, and piston-rods and cylinder boxes are doomed to swell the dust heap along with the post-horns and leather curtains of the stage coach. The trolley is cheap and more effective, and that tells the story. Where we used to build branch railroads we now put up a trolley line, saving both in initial cost and in subsequent operating expenses. Road wagons and private carriages to run independently over a system of trolley lines extending in a vast net-work throughout creation are a possible feature of the near future, and in the mean-time experiments are being made on the great trunk lines looking toward an entire change in motive power.

One of the New England railways has already introduced the trolley on branch lines; the big electric motor built for the Baltimore & Ohio company has more than fulfilled expectations; an electric supply company has taken the contract to turn the elevated railroads of New York city into trolley lines; and, according to newspaper reports, a syndicate is to construct an electric road between Chicago and New York, upon which the journey of a thousand miles is to be regularly made inside of six hours. The change is inevitable and in logical accordance with the spirit of the age.

And yet one may be permitted to think with a fleeting regret of the old order that is changing so rapidly before our very eyes. There was a certain element of picturesqueness, Mr. Ruskin to the contrary, in locomotion by steam. The engine itself, an uncouth Frankenstein, with stentorian lungs and heart of fire, was yet irresistibly attractive in its very ugliness, and commanded respect as the physical embodiment of a mighty power. And then the fast trains, with their fascinating popular nomenclature, "The Flying Dutchman," "The Wild Irishman," and our own "Limited" and "Exposition Flyer." It was a distinction in itself to have been a passenger on the "Scotland" or the "Cannon-Ball," just as in the old days it was a matter of pride to have had one's name inscribed on the booking-sheet of the "Royal George" or the "West of England Mail." How prosaically it will read on the time tables of the future: "Cars for Chicago and San Francisco will be run in ten minutes' headway; to Jerusalem, Kamtchatka, and Far Cathay every half hour."—*Harpers' Weekly.*

The difference between success and failure in farming consists almost entirely in the different degrees of care bestowed upon the details of farm work. The man who gives "extra care" is the man who finds the readiest market and the top prices, while his careless neighbor either has his products wasted on his hands or sold at a price below the cost of production. The chief trouble usually, observes the *Farm News*, is not the farmer is ignorant of what to do, nor too lazy to do it; it is that he attempts to do more things than he can do well, and fails. It does not pay.

There is more room for system in doing the everyday work of the farm than most men ever dreamed of, and it is safe to say that on this one item of system or ordliness as observed by the farmer in the doing of his daily work depends largely his success in life. How can any farmer work to advantage with things at sixes and sevens at every turn on his farm? asks the *Nebraska Farmer*, with great force. He simply cannot do it, and that is the end of it.

The farmer leads a more natural life than anybody else; his soil is his bank, and the elements his coadjutors; if he neglects the one, or the weather goes back on him and refuses to rain on his corn, he is not bankrupt thereby, for he knows that if the earlier rains fail, that the latter will be sure to come, and that partial failure is not disastrous. His stock grows in wet weather and dry, and, come what may, he has an assurance of all the necessities of life in abundance.

Calendar.

1896-97.
Fall Term—September 10th to December 19th.
Winter Term—January 5th to March 27th.
Spring Term—March 30th to June 10th.
June 10th, Commencement.
1897-98.
Fall Term—September 9th to December 18th.

To School Officers.

The College Loan Commissioner has funds now to invest in school district bonds at par. The law requires that no bonds be sold at par or less without being first offered to the State School Fund Commissioner and the State Agricultural College. Address

GENERAL LOCAL NOTES.

Mrs. F. H. Avery, of Wakefield, is visiting with her sister, Mrs. Graham.

Mr. J. M. Pieratt, Principal of the LeRoy Schools, was at the College this forenoon.

Prof. Hitchcock contributes to the *American Naturalist* an article on "Vegetable Physiology."

President Fairchild will deliver the Memorial Day address at the M. E. Church, next Sunday.

County Superintendent Sipes, of Fredonia, spent several hours at the College on Thursday.

Dr. Mayo investigated a reported case of Texas fever near Diamond Springs the first of the week.

Prof. Walters has completed plans for the proposed addition to the Manhattan Grammar School Building.

Della Suprenaw of Clifton stopped over to spend Thursday of last week at the College, while on her way to Columbus, Ohio.

R. W. Clothier, Fourth-year, took his Sunday School Class of seven boys to Eureka Lake on a fishing trip Friday afternoon.

The contract for Domestic Science Hall was awarded to L. D. Eversole of Topeka at \$10,759.87. Mr. Eversole writes that he expects to begin work this week.

Dr. Hawkins and wife, of Marysville, stopped off on their way home from the State Medical Association at Topeka, to visit about College Saturday afternoon in company of Miss Finley, Fourth-year.

Mrs. Kedzie will address the Young Peoples' Society at the Presbyterian Church next Sunday evening, giving an account of the celebrated cathedrals of foreign lands she visited in the summer of 1895.

Prof. White has been informed by the publishers that his "Outline Studies in the History of the United States" is now used in nearly five hundred schools. His "Outline Studies in General History" will be ready in the fall.

Telegraph Editor Graybill and Exchange Editor Fritts of the Topeka *Capital* spent the forenoon at the College, and found the time all too short for full answers to their many questions concerning various departments and their work.

Prof. Olin gave the Commencement address before the Hutchinson High School, Thursday evening. The Class numbered twenty-two, and was as fine a body of young people, the Professor says, as he ever saw graduate from any school during his twenty-eight years of teaching.

The Cadets made a fine showing at the annual inspection, Thursday afternoon, conducted by Major Moore, of Denver, Inspector General of the Army. The four companies of Cadets vied with one another in drilling, and it would puzzle any one of the large number of spectators to decide which excelled. The firing was especially good, the 200 guns of the Battalion sounding like the crash of a cannon, so perfectly in unison were the volleys fired.

The Manhattan-College combination ball club has lost its grip, and is traveling on a well-greased toboggan slide. In the University game at Lawrence on Saturday it suffered defeat by a score of 9 to 6, and this (Monday) afternoon received its second drubbing at the hands of Abilene. The University boys expect to be here May 31st, and since they have shown their ability to play ball out of sight of their town and without the assistance of their home "rooters," it is safe to predict they will defeat the badly demoralized combination without an effort.

Prof. and Mrs. Willard entertained the "tennis crowd" of the Faculty Saturday afternoon from four to seven o'clock. The gentlemen played tennis while the ladies visited among themselves. At six o'clock delicious refreshments were served on the lawn, after which came more tennis and more visiting. The sandwiches, the wafers, and the button-hole souvenirs were cut in the shape of tennis rackets. The hours passed pleasantly and therefore swiftly, and the guests regretted the early arrival of the hour when they had to take leave of their hospitable host and hostess.

Military Banquet.

On Saturday afternoon groups of boys were seen emerging from the Armory with happy smiles on their faces and bundles of blue clothes under their arms, and later in the evening these same boys, arrayed in the full glory of a Cadet uniform, could be seen walking leisurely along the streets, accompanied by their fair ladies, bound for Union Hall, where the second annual banquet of the Cadet Officers was to be held.

By 8:30 the hall was well filled with a gay of young people, who spent the time in talking and playing

games till 10 o'clock, when an elegant lap supper was served, after which the following program was rendered: A toast, "The Future of the Military Department," by Lieut. Wm. Anderson, made us see the present battalion increase in size till it became a corps with a brigadier general in command, and the glory of the College could be seconded only by West Point as a military training school. A vocal solo, "Dream of My Boyhood Days," was given by Lieut. Patten, after which a toast, "The Battalion in Action," was given by Lieut. T. W. Allison, who told of some of the laughable instances that had occurred in the past, and gave great promises for the action in the future. Miss Lottie Eakin responded to a call for a vocal solo. Lieut. E. V. Hoffman gave a toast to the ladies, in which he told of the influence the ladies held over the soldier. This was responded to by Miss Harriet Vandivert, who in a very pleasing way said the women recognized and appreciated this influence, and that it had been used in the past and is being used at the present time for the betterment of the soldier and the cause he fights for. In the toast "Our Captain," Adj. A. D. Whipple told of the work done by the present commandant and how the Department has developed and expanded under his charge. After music by the band, the guests took their departure, feeling that the College can be justly proud of the Military Department. B.

Field Day.

A goodly number of spectators gathered at the City Park this (Monday) afternoon to witness the events in the second annual field-day exercises. The events were interesting alike to contestants and spectators, though no records other than local were broken. J. A. Lee, First-year, distanced all competitors in the standing broad jump, covering 12 feet, 5½ inches, against 11 feet, 5 inches by Cavanaugh of the Class of '96. F. Howard, First-year, in the running high jump, cleared an even 5 feet against 4 feet 10 inches by Cavanaugh last year, and took first in the pole vault at 8 feet 1¼ inches, against Dial's 7 feet 11½ inches in '96. Last year's shot put of 31 feet 2½ inches, and the hammer throw of 67 feet 7 inches were beaten this year, with records as given below.

The track was rough and dusty, and therefore slow, which accounts for the poor showing in the running and bicycle races. Smith and Avery could easily have brought the time in the bicycle race under six minutes, even under the unfavorable conditions, but contented themselves with jogging along until the finish. It was more of an exhibition ride than a race.

Hundred yard dash—Dial, first; Piersol, second; Fitts, third. Time, 11 4-5 seconds.

Pole vault—Howard, first; Dial, second. Height, 8 feet, 1 1-4 inches.

Base-ball throw—Howard, first; Hayward, second; Dial, third. Distance, 284 feet, 3 inches.

Two hundred and twenty yard dash—Fox, first; Brown, second; Avery, third. Time, 26 2-5.

Standing broad jump—Lee, first; Butterfield, second; Dial, third. Distance, 12 feet, 1-2 inches.

Running broad jump—Dial, first; Piersol, second; Snodgrass, third. Distance, 16 feet, 6 inches.

Hammer throw—Butterfield, first; Pratt, second; Fox, third. Distance, 74 feet, 10 1-2 inches.

Four hundred and forty yard run—Howard, first; True, second; Bishoff, third. Time, 1:09 3-5.

Shot put—Lehmkuhl, first; Butterfield, second; Dial, third. Distance, 33 feet, 5 inches.

Half-mile run—Fox, first; Pratt, second; Kinsley, third. Time, 2:35 4-5.

Running high jump—Howard, first; Dial, second; Butterfield, third. Height, 5 feet.

One-mile relay race—LaShelle, Snodgrass, True, Kinsley, first; Grubb, Webster, Nicholson, Parrack, second; Fox, Rice, Hoop, Dial, third. Time, 4:30.

Two-mile bicycle race—A. C. Smith, first; Avery, second; Anderson, third. Time, 7:37 4-5.

Total points—First-years, 48; Fourth-years, 43; Second-years, 35.

SEVENTH

DIVISION

SENIOR CLASS

CHAPEL

SATURDAY, MAY 15, 1897

MUSIC—COLLEGE ORCHESTRA

HARRIET VANDIVERT . . . THE NEW CHARITIES

J. E. TREMBLY AMBITION

WILHELMINA SPOHR CO-EDUCATION

J. M. WESTGATE BE A SCIENTIST

VOCAL DUET

MISSES LYMAN AND PFUETZE

ALICE M. SHOPE THE RIGHT OF SUFFRAGE

M. WHEELER FRUIT

CLARE WILSON . . . THE RESPONSIBILITIES OF FREEDOM

GRADUATES AND FORMER STUDENTS.

A. B. Kimball, '89, editor of the *Scandia Journal*, is appointed postmaster of his town.

Emil Bammes, student in 1885-6, was visiting his brother in College during the past week.

Lucy Ellis, '95, will take examination for State Certificates to be held at the College this week.

Lillian H. John, '91, was at College on Thursday. She plans to attend the summer school at the State Normal.

Flora Day, '95, is at the Kirksville (Mo.) Osteopathic Institute to care for her little brother during a course of treatment.

E. A. Donaven, '94, who graduated last month from a Kansas City medical college, is located for practice at Goodrich, Linn County.

Ellen Norton, '96, who has been keeping house for her brother, J. B. S. Norton, '95, at St. Louis for several months past, is at home for a visit.

The Topeka correspondent of the *Kansas City Star* is authority for the statement that Geo. E. Stoker, '90, is soon to be married to Miss Edith Isabell of Topeka.

Hugo Halstead, '95, of Leonardville, visited College friends on Saturday. He will spend the summer in his father's store, and will probably teach again next year.

C. A. Murphy, '88, Superintendent of the Kingman Schools, visited Hutchinson during the graduating exercises of the schools to greet Prof. Olin and get some college news at first hands.

K. C. Davis, '91, for three years past Principal of the High School at Austin, Minn., resigns on account of reduced salary, and may spend a year in special study at Cornell University.

F. A. Dawley, '95, writes from Waldo, Kansas, of a successful year, farming during summer and teaching during winter. He is a member of the Board of Examiners for Osborne County.

Steuart T. Morse, First-year in 1894-5, who has spent the last two years with a Government surveying squad in the Territory, dropped in last Saturday to spend a few days with his brother and old College friends.

P. S. Creager, '91, news editor of the *Kansas City Journal*, writes of his experience in the treadmill of daily newspaper life. He will be here for the Alumni banquet and reunion if it is at all possible for him to get away.

John J. Fryhofer ['95] came home Saturday from Atchison, where he has had a situation in the Soldiers Orphan's Home for the past eight months. The change in the management has left John without employment.—*Randolph Enterprise*.

The many friends of Miss Madeline Milner ['91], will be pleased to learn of her success, Dr. Gunsalus tendering her, unsought by herself, the position of assistant librarian of Armour Institute. Miss Milner completes her course in library economy this spring, and begins work next fall.—*Manhattan Nationalist*.

Miss Elizabeth Edwards ['92] went to Manhattan Friday where she will probably remain during the summer vacation. We believe that all of the patrons of our schools are pleased with the work Miss Edwards has done in the past three years as teacher of the primary department, and that all would like to see her have charge of that department again the coming year.—*Randolph Enterprise*.

Athletics and Scholarship.

The stand reported to have been taken by the faculty of Yale University against permitting undergraduates to engage in athletic contests when they are behind in their studies will be approved by every one who wishes to see amateur athletics kept clean and pure. It is a rule made by the University of Pennsylvania and other colleges, and it should be general.

Every intelligent observer of college athletics has regretted the tendency to subordinate scholarship to success in inter-collegiate games. The practice has not been universal, for many of the best athletes on college teams have stood among the best scholars in their class. There has been enough of it, however, to exert a harmful influence in college life. When a desirable member of the baseball or football team was allowed to slip easily through college in return for the honor he brought to it on the athletic field other students naturally concluded that diligence was not necessary to success in life. In this way, the high ideals with which many young men entered college were lowered, if not lost altogether. A demoralizing atmosphere was produced, and wrong ways of thinking were fostered among young men at the most susceptible period of their lives.

It is an honor to represent a college or university on the athletic field, and it should be accorded to no one who does not show diligence in study as well as physical prowess. There is no purpose in this to put a check on athletics which have done so much to develop the physical capacity of the American college student during the past ten years. The rule will do much to encourage instead of discourage amateur sports, for the scholars will not see themselves overshadowed by the strutting athlete who has nothing but his physical prowess to recommend him. If Yale University takes and adheres to the position that scholarship must go along with athletics, a long step will be made toward clean amateur sports.—*Philadelphia Press*.

COLLEGE ORGANIZATIONS.

Student editors.—Philip Fox, Gertrude Lyman, R. J. Peck.

Y. M. C. A.—President, G. D. Hulett, '98; Vice-President, E. O. arar; Recording Secretary, C. R. Nelson, 1900; Corresponding secretary, J. M. Pierce, '98; Treasurer, C. H. Lehmkuhl, '99.

Y. W. C. A.—President, Nora Reed; Vice-President, Ella Weeks; Recording Secretary, Louise Maelzer; Corresponding Secretary, Maggie Minis; Treasurer, Myrtle Harner.

Alpha Beta Society.—President, Grace Dille; Vice-President, Guy Hulett; Recording Secretary, H. A. Martin; Corresponding Secretary, Inez Manchester; Treasurer, Nora Reed; Critic, R. W. Clothier; Marshal, Laura Pritchard. Meets every Saturday afternoon in South Society hall.

Ionian Society.—President, Margaret Correll; Vice-President, Ary Johnson, Recording Secretary, Phoebe Smith; Corresponding Secretary, Grace Stokes; Treasurer, Hilda Olson; Critic, Gertrude Lyman; Marshal, Maude Currie. Meets every Saturday afternoon in North Society hall.

Webster Society.—President, Mark Wheeler; Vice-President, T. W. Allison; Recording Secretary, J. W. Bower; Corresponding Secretary, C. B. White; Treasurer, H. P. Neilsen; Critic, W. T. Pope; Marshal, T. C. Melbert; Board of Directors, Schuyler Nichols, J. A. Conover, George Martinson, L. E. Potter, H. R. Webster. Meets every Saturday evening in South Society Hall.

Hamilton Society.—President, O. E. Noble; Vice-President, G. F. Farley; Recording Secretary, O. R. Smith; Corresponding Secretary, W. M. Poole; Treasurer, A. J. Leonard; Critic, C. B. Ingman; Marshal, Wm. Anderson; Board of Directors, V. Maelzer, M. C. Adams, L. A. Fitz, H. W. Rogler, M. W. Sanderson. Meets Saturday evening in North Society Hall.

May 15th.

When the Society assembled Saturday afternoon, there seemed to be a mysterious something outside which seemed to necessitate the presence of most of the Ionians, and longing and wistful expressions were visible on the faces of all the girls but the President and probably the reason she was so unconcerned as to the outside world was because she was seated in such a place as to prevent her seeing through the window. The mystery was only deepened as bursts of laughter were heard every now and then from the assembled Ionians on the front steps of Science Hall. Woman's curiosity soon won the day, and the Marshal was sent out to request the presence of the absent ones and to find out if she could what magnetizing influence was possessing the girls. After much delay, she returned and stated, as we might have known all along, that the magnet was a man—and a monkey. Upon a unanimous vote, the man and monkey were invited in, and as the monkey danced, bowed, and scraped no one wondered why it had proved such a source of amusement. After the monkey entertainment, the Ionians regained their dignity and proceeded with the usual program. Misses Eakin and Huntress were present and each kindly favored us with pleasing musical selections. The program was as follows: piano solo, Miss Huntress; Oracle, Miss Michols; vocal solo, Miss Lotta Eakin; Ghost story, Miss Waugh; continued story, Miss Spohr. The business session was unusually short, and Society then adjourned. G. S.

May 15th.

In the absence of President Noble, Vice President G. F. Farley called the Hamiltons to order. Owing to the Military banquet, and the ball game at Lawrence, only a small number responded to the roll call. Prayer E. O. Farrar. A. Robison gave the humorous side of protection and free trade. Oration, F. D. Waters, conservatism and radicalism. The debate was next taken up on the question, 'Resolved that a restriction should be put upon the amount of property to be inherited.' The leaders being absent, W. L. Hall and V. Maelzer were appointed to open the debate; W. L. Hall and C. C. Sowell argued that the large amount of property handed down generation after generation tends to degenerate manhood and that by holding back some of it, it might be put to a better advantage than it now is. V. Maelzer and C. L. Reme argued that if a restriction is placed on the amount inherited it will tend to make these great employers work to get just the limited amount and no more, and would not be of so great a service to the country. After two votes, the Society decided in favor of the affirmative. L. G. Hill gave an interesting declamation on tobacco chewing. After the Critic gave his report, the Society took up its unfinished business, which lasted until adjournment hour. W. P.

May 15th.

In the absence of both President and Vice President, Webster Society was called to order by the Recording Secretary and Mr. Peck was asked to take the chair. Mr. Bolton led the Society in prayer. A motion to go into joint session with the Hamilton Society was defeated, and the regular program was taken up. In debate on the question, "Has Commerce contributed more to Modern Civilization than Manufacturing?" the affirmative was argued by Messrs. Jackson and Hutchinson, the negative by Messrs. Holzer and Burgess. The debate furnished a good deal of amusement, as might be guessed from the nature of the question. After a declamation by Mr. McLaren, Mr. Putnam sang a song and responded to an encore. Mr. Bolton told a fish story which proved to be rather snaky before it was finished. The Reporter, edited by Mr. Bower, was a bright number and was well received. Mr. Bunch furnished music, after which Mr. True, under the title of book review, presented a well-written abstract of the "Legend of Sleepy Hollow." Critic's report, unfinished business, and extemporaneous speaking occupied the Society till 10:30. C. B. W.

From City to Country.

Recent depression in the business world has set a great many men to thinking, both on and off the farm. The farmer is dissatisfied with his profits, or rather the lack of them, and in many instances he is in doubt as to the direction in which he shall expend his future efforts. On the other hand, a greater number of the dwellers in large cities are meditating, if not this year, then the next year, a removal from the ceaseless and senseless turmoil, and keen competition that are inseparable from the life of men in masses. They argue, with much show of justice, that rural life always affords at least a living; that it is secured with less mental anxiety, and less dependence on complex conditions that are beyond the worker's control; that if the prizes in life's lottery are rarely capital one's failures are rarely ruinous. There are, of course, many classes of town and city people to whom this does not apply. Wealthy people, well established in business, who have felt the pressure of close times to little or no extent, do not think this way; those to whom "society" is the breath of their nostrils and whose energies are spent in worming their way into some more or less caddish and exclusive "400," are possessed by the old-time idea that the rural dweller is synonymous with "clodhopper," with whom they want no fellowship. Those whose bent in life is all in the direction of its dissipation find larger opportunities for indulgence in cities, and hence have no leaning to the calmer and more virtuous delights of country living.

But there is a large class of steady, sturdy, sensible and industrious men to whom none of these considerations appeal—men to whom "toothpick" shoes and duds tailoring are not essentials to happiness; who do not work by day for money to "blow in" at some questionable or disreputable resort at night; who have no social ambitions, the value of which depends, not upon their intrinsic worth, but upon the difficulty of gratifying them, and who are satisfied with such social intercourse as the companionship of worthy, genial, and congenial people afford regardless of the balance they keep at their bankers' or the question whether their social gatherings will be mentioned in the morning papers. Men of this class and their families are becoming tired of the precariousness of the conditions under which they live and for which there are no adequate returns; they are tired of paying every month as much as a good acre of land is worth for a mere roof to cover their heads; they are tired of the expenditure they must make for the sake of mere appearances and for an environment where the most trifling as well as the greatest necessities of life must always be purchased and can never be self-supplied. In more favorable times, all these things were endured because they were not felt to be so oppressive, but now refuge from them is being determined on, half-determined on, or dreamed of, to a greater extent than the general public think. Sometimes the trend only extends to a home in the suburbs where a cow, pigs, and poultry can be kept and an ample garden provided, and sometimes it goes the whole length of a complete change to actual country living and an exclusive reliance on the soul, but in some form the feeling has taken possession of the breasts of many men, that city living makes no compensation for its cost in money, anxiety, toil, and nervous wear-and-tear.

For a long time one of the problems of social science which thoughtful men considered with anxiety has been the tendency of country people to migrate to cities. It was thought to be fraught with danger both to individual welfare and to national stability. Now there is certainly a reaction, at least in desire, and many of those who live in cities and towns want to get back to the country. Just how many of substantial results will follow this desire we cannot predict. We do know, however, that this paper is being more largely read in cities and towns than formerly, and that, too, for the sake of what it has to say on topics relating to agriculture and live-stock. Business men come to the office with agricultural and live-stock questions, and in search of counsel as to what books and bulletins they shall procure in order to acquire a knowledge of the rural interests. The country needs these men, and the cities do not. President Jorden, of Stanford University, in speaking of the matter, says: "Certainly one-fourth of the present population of such a city as San Francisco, for example, has no real business there," and the same is true of every other city as well as many of the smaller towns. The farm develops just the kind of citizens the country needs, while the city lamentably fails to do so in a large proportion of cases. Content and happiness are the rule in country living, while the want, denial, and even misery of city life are not fully known even to city residents except where they make a special study of it. Any tendency to a return to country life is to be welcomed.—*Iowa Homestead.*

In these days of sharp competition, the seller is almost compelled to hunt the buyer. He must let the public know that he has something for sale, and that this something is of the best quality. In short, says the *Southern Farm Gazette*, he must make the selling of his wares as much a matter of thought as the production of them.

Real success in farming, as elsewhere, does not consist wholly of making money and becoming wealthy. There are other aims and motives in farm life of quite as much importance to our well being and happiness as is the accumulation of wealth. The farm house, remarks the *Maine Farmer*, unpretentious though it be, yet made pleasant and cheerful by the planting of shade trees, orchards, fruits, vegetables, and flower garden, teaches a love for the beautiful in nature and adds a pleasantness and charm to farm life the magnificence and splendors of city life can never equal.

College Business.

Loans upon school-district bonds are to be obtained from the Loan Commissioner.

Bills against the College should be presented monthly, and, when audited, are paid at the office of the Treasurer in Manhattan.

All payments of principal and interest on account of bonds or land contracts must be made to the State Treasurer, at Topeka.

The *INDUSTRIALIST* may be addressed through Pres. Geo. T. Fairchild, Managing Editor. Subscriptions are received by Supt. J. S. C. Thompson.

Donations to the Library or Museums should be sent to the Librarian, or to Prof. Popenoe, Chairman of Committee on Museums.

Questions, scientific or practical, concerning the different departments of study and work, may be addressed to the several Professors and Superintendents.

General information concerning the College and its work,—studies, examinations, grades, boarding-places, etc.,—may be obtained at the office of the President, or by addressing the Secretary.

The Experiment Station should be addressed through the Secretary.

Objects.

This College now accomplishes the objects of its endowment in several ways.

First, It gives a substantial education to men and women. Such general information and discipline of mind and character as help to make intelligent and useful citizens are offered in all its departments, while the students are kept in sympathy with the callings of the people.

Second, It teaches the sciences applied to the various industries of farm, shop, and home. Chemistry, botany, entomology, zoology, and mechanics are made prominent means of education to quicken observation and accurate judgment. Careful study of minerals, plants, and animals themselves illustrates and fixes the daily lessons. At the same time lessons in agriculture, horticulture, engineering, and household economy show the application of science; and all are enforced by actual experiment.

Third, It trains in the elements of the arts themselves, and imparts such skill as to make the hands ready instruments of thoughtful brains. The drill of the shops, gardens, farm, and household departments is made a part of a general education to usefulness, and insures a means of living to all who make good use of it. At the same time it preserves habits of industry and manual exertion, and cultivates a taste for rural and domestic pursuits.

Fourth, It strives to increase our experimental knowledge of agriculture and horticulture. The provision for extensive and accurate researches, made by establishing the Experiment Station as a distinct department of the College, offers assurance of more definite results than can be obtained by ordinary methods. The Professors of Agriculture, Horticulture, Chemistry, Botany, and Veterinary Science, together with the President of the College, form the Experiment Station Council, by authority of which experiments are undertaken and carried on in the several departments, under the special supervision of the professors. These touch "the physiology of plants and animals; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under a varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and waters; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable."

The bulletins of the Station, issued at least as often as once in three months, are sent, according to law, free of postage, to all newspapers in the State, and "to such individuals actually engaged in farming as may request the same, and as far as the means of the Station will permit." Correspondence with reference to bulletins and experiments is welcomed, and may be addressed to the several members of the Council.

Fifth, It seeks to extend the influence of knowledge in practical affairs beyond the College itself. For this purpose, farmers' institutes have been organized in more than 40 counties of the State, in which from two to four members of the Faculty share with the people in lectures, essays, and discussions upon topics of most interest to farmers and their families. These institutes, held for twelve years past, have brought the College into direct sympathy with the people and their work, so as to make possible a general dissemination of the truths presented. The members of the Faculty desire correspondence as to farmers' institutes or any questions of practical interest in agriculture or related sciences. The *INDUSTRIALIST*, published weekly, and edited by Faculty and students, gives a wide circulation to matters of similar interest in the College.

To serve a similar end, a course of thirty lectures is given at the College during two weeks in February of each year, to which farmers from all parts of the State are invited. Members of the Faculty are also prominently connected with State associations for the promotion of agriculture, horticulture, the natural sciences, and education in general.

MANHATTAN ADVERTISEMENTS.

R. E. LOFINCK deals in new and Second-hand Text-books and School Supplies of all kinds, gold pens, etc.

E. A. WHARTON'S is the most popular Dry Goods Store in Manhattan. The greatest stock, the very latest styles, the most popular prices. Always pleased to show goods.

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THE BOTANICAL DEPARTMENT.

BY PROF. A. S. HITCHCOCK.

IT happens that the equipment of the Botanical Department of our College is nowhere described. The Biennial report for 1895-96 gives the growth during those two years, and the Annual Catalogue gives a short statement in regard to studies pursued. It is proposed here to give a short account of the facilities of the Department, for the benefit especially of those contemplating a post-graduate course of study. The departments of the College and the Experiment Station will be considered together.

ROOMS.

The Department occupies rooms on the second floor of the Library and Agricultural Science Hall, as shown by the accompanying diagram. The movable furniture is not shown, but consists of the necessary desks, tables, and chairs. The laboratory tables are fastened firmly to the floor, and allow space for nine

scope, felt-covered vegetative chamber, and various utensils and supplies for mounting and preserving microscopical preparations.

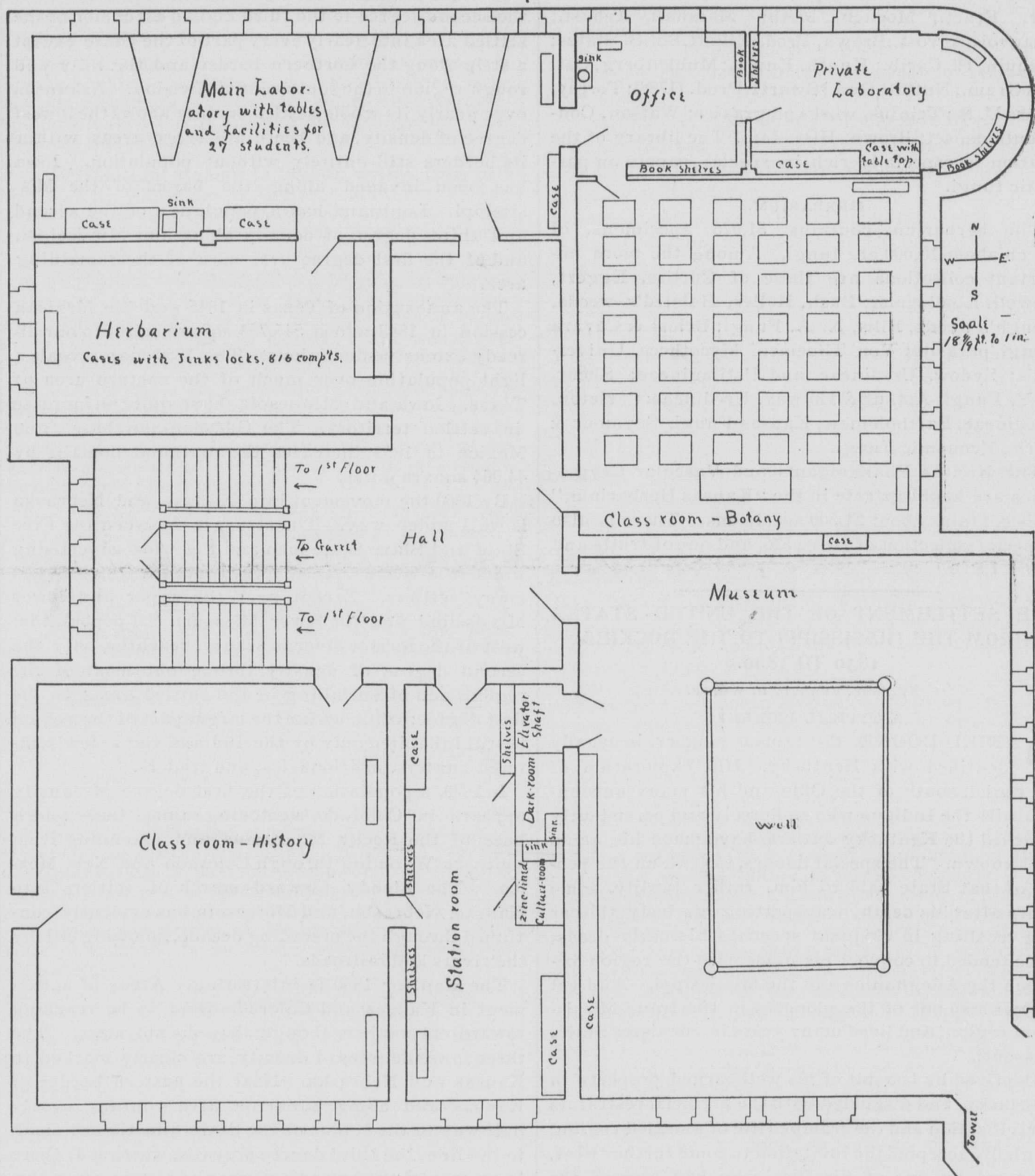
Microtomic apparatus. A Beck microtome with two long knives for celloidin, a short one for paraffine, and a thick one for wood sections. A hand microtome, washing, dehydrating, and all other usual apparatus for fixing, embedding, staining, and mounting serial sections.

Bacteriological apparatus. A zinc-lined culture room, levelling apparatus, ovens, stoves, damp chambers, flasks, various other apparatus for all ordinary bacteriological work.

Photographic apparatus. A camera with accessories. A Zeiss camera for microscope. A dark room.

Drawing apparatus. An adjustable drawing table, with tools for India ink line work.

Miscellaneous. Germinating pans, 37 bell-jars,



students at each table. The case in the east end of the main laboratory is a compartment case with glass doors, for the compound microscopes. Along the walls, not otherwise occupied, are slate blackboards. Also in the class room, there is slate blackboard all around.

The third floor of the Museum, which is reached by a short flight of stairs, is occupied by the Botanical Department. There is a garret above all the rooms, which is used for storage purposes. The portion above the Museum is well lighted and is used for drying herbarium specimens and storing duplicates in suitable cases for reference.

APPARATUS.

Microscopes and accessories. There are twenty-six compound microscopes, supplied with two objectives and eye-pieces, together with the usual utensils for elementary microscopical work, and four dissecting microscopes, also two Zeiss microscopes, each supplied with triple nose-piece and Abbe condenser. One has eight eye-pieces and three objectives; the other, ten eye-pieces, ten objectives, and mechanical stage. There are two Abbe cameras, a class micro-

two balances, two spraying pumps, a hand threshing machine.

CHARTS.

The Department is not supplied with the usual series of charts, but instead uses those drawn by the special artist of the Department. These charts are enlarged reproductions of cuts found in standard botanical works. There are at present about 125 of these.

LIBRARY.

The botanical portion of the Library consists of about 800 bound volumes and numerous pamphlets. Some of the more important are the following:—

Berlese, Icones fungorum, set.
Brefeld, Schimmel-pilze, set.
Kuhn, Berichte, set.
Journal of Mycology, set.
Peck's Reports, 22-48, nearly complete.
Saccardo Sylloge Fungorum, set.
Pilze Deutschlands, set.
Bentham & Hooker, Genera Plantarum.
DeCandolle, Prodrromus.
DeCandolle, Monographiae.

Just, Botanischer Jahresbericht, set.
 Nicholson, Dictionary of Gardening.
 Kerner, Pflanzenleben, German and English.
 Baillon, Dictionnaire de Botanique.
 Index Kewensis.
 Botanisches Centralblatt, from 1892.
 Le Monde des Plantes, set.
 Zeitschrift für Wissenschaftliche Mikroskopie, set.
 Botanical Gazette, set.
 Berichte der Deutschen Botanischen Gesellschaft, set.
 Bulletin Torrey Botanical Club from 1892.
 Erythea, set.
 Engler and Prantl, Pflanzenfamilien, set.
 Experiment Station Record, set.

The general works of Le Maout and Decaisne, Luerssen, Van Tieghem, Eichler, Grisebach, etc.

The private library of the Professor, numbering about 350 volumes, is deposited in the Department, and is accessible to students. This includes a set of the Annales du Jardin Botanique de Buitenzorg, a fairly complete set of the works of Linnaeus, including the first edition of the genera and species, also many of the older descriptive works, such as Gaertner, Fruct.; Moench, Meth; Marshall, Arbust.; Beauvois, Agrost.; Brown, Prod.; Elliott, Bot. S. States; Jacquin, Pl. Carib.; Kunth, Enum.; Muhlenberg, Cat. and Gram.; Nuttall, Gen.; Swartz, Prod. (1788); Torrey, Flora U. S.; Trinius, works on grasses; Watson, Contributions, set; Brown, Hist. Jam. The library of the Station is especially rich in special papers on parasitic fungi.

HERBARIUM.

The herbarium contains 51,975 specimens, of which about 10,000 are fungi. Among the more important collections are those of Curtiss, Eggert, Howell, Lindheimer, Bush, Heller, Halsted's weeds, Hough's woods, Ellis, N. A. Fungi; Briosi & Cavara Fungi parasite; Von Thuemen, Mycotheca Universalis; Sydow, Uredineae and Ustilagineae; Shear, N. Y. Fungi; Arthur & Holway, Uredineae; Carleton, Uredineae; Bartholomew, Kansas Fungi, Seymour & Earle, Economic Fungi.

The Kansas Phanerogams and Vascular Cryptogams are kept separate in the "Kansas Herbarium." This contains about 21,500 specimens. There is also a special collection of twigs 526, and one of fruits and seeds, 1,500.

THE SETTLEMENT OF THE UNITED STATES FROM THE MISSISSIPPI TO THE ROCKIES, 1830 TO 1890.

BY PROF. FRANCIS H. WHITE.

A TYPICAL PIONEER.

DANIEL BOONE, the famous pioneer, is usually identified with Kentucky. His exploration of the region south of the Ohio and his many encounters with the Indians who so fiercely and persistently attacked the Kentucky settlers, have made his name well known. The special honors, too, which the people of that State paid to him, rather tardily, some years after his death, transporting his body thither and recalling in eloquent speeches his early deeds, have tended to connect his name with the region between the Alleghanies and the Mississippi. And yet he was also one of the pioneers in the trans-Mississippi region, and lived many years in our sister State, Missouri.

Deprived by lawsuit of his well-earned property in Kentucky, and disgusted with the artificial restraints of civilization and the cramped life of a settled region, he gladly accepted the invitation to come further west, tendered by one of his sons who had crossed the Mississippi and established himself on a part of the Spanish domain now known as Missouri.

It was in 1798, he started for his new home. Driving his cattle before him and accompanied by his wife, he made his way through the woods and along the banks of the Ohio and Mississippi and at last settled in a place about forty-five miles above St. Louis. Here he lived in rude comfort on a large tract of land granted by the Spanish government, and made extended hunting trips into the interior, even in his old age.

THE PROGRESS OF SETTLEMENT.

The purchase of Louisiana territory, from France in 1803, added 1,124,685 square miles to the National domain, and gave what the Western people especially had so long coveted, the complete control of the Mississippi from source to mouth. When the land came into our possession, settlement therein had already commenced.

In 1810, we find important areas of population running up the Mississippi from New Orleans to near the present northern limits of Louisiana; up the Red river and the Arkansas for short distances; between the junctions of the Ohio and the Missouri with the

Mississippi and at a few other places along the banks of the Mississippi.

These areas were considerably widened and extended by 1830, but not until after that date did the movement of population go on very rapidly. It is curious to observe the marked preference the first settlers manifested for the region bordering on the principal streams. By 1830, the Red is settled to what will now be the eastern boundary of Texas; the Arkansas, all along its course, until it enters the Indian territory; the Missouri, up to Kansas City. Even at this early date, the region around the mouth of the Kansas shows signs of special attractiveness to settlers, for the density of population has risen to the third degree.

It will be convenient to state at this point that the census maps, which are the basis of this study, are colored to represent the different degrees of density of the population. The first degree is two to six inhabitants to the square mile; the second, six to eighteen; the third, eighteen to forty-five; the fourth, forty-five to ninety; the fifth, ninety and over.

The 1840 map shows an increase in density in most of the previously settled portions of Missouri from the second degree to the third and an extension of the settled area into nearly every part of the State except a strip along the northern border and the hilly and rough region in the south central division. Arkansas over nearly its whole settled surface shows the lowest degree of density, and there are large areas within its borders still entirely without population. Iowa has been invaded along the banks of the Mississippi. Louisiana has a population of the second and third degree of density along the Mississippi, and of the first degree over most of the remaining area.

The annexation of Texas in 1845 and the Mexican cession in 1848 added 545,753 square miles to our already extensive dominions. The 1850 map reveals a light population over much of the eastern area of Texas. Iowa and Minnesota have quite an increase in settled territory. The Gadsden purchase from Mexico in 1853 increases the national domain by 44,064 square miles.

By 1860 the movement into Kansas and Nebraska is well under way. The struggle between the Free State and Slave State men and the wide advertising which the State received in consequence, brought many settlers. Except near the upper and lower Mississippi and the lower Missouri, the population west of the former river is scanty, reaching only the second degree of density throughout most of the region, and often falling in the settled areas to the first degree; while by far the larger part of the region is still inhabited only by the Indians and a few scattered hunters, missionaries, and traders.

In 1870, a population of the first degree of density appears in Colorado, stretching along the eastern base of the Rocky Mountains and extending from southern Wyoming through Colorado and New Mexico. The steady forward march of settlers into Kansas, Nebraska, and Minnesota has evidently continued through the preceding decade, following chiefly the rivers and railroads.

The map for 1880 is interesting. Areas of settlement in Kansas and Colorado seem to be reaching toward each other, though they do not meet. The three lower degrees of density are clearly marked in Kansas and Nebraska. Near the eastern border of Kansas and along a narrow area running nearly half way to the center of the State and thence south to the line, the third degree prevails; westward, there is an area of the second degree, and bordering on this an area of the third degree of density, while almost the entire western border has no population indicated. Nebraska and Texas have somewhat similar conditions, while Dakota has a large part of its territory occupied by Indian tribes and much of the remaining portion is still unsettled.

The map for the last census, 1890, shows a remarkable advance of population. Kansas now has only one unsettled area—the extreme southwest corner. The fourth degree of density generally prevails; next comes the third, of almost equal extent, and finally the second, in the extreme western part. Nearly the same might be said of Nebraska, except that it is the northwest corner that is still unsettled. Oklahoma, opened to settlement in 1889, has an area of the fourth degree around Guthrie, and the Dakotas have nearly half of their area supplied with a scanty population. The great Sioux reservation in South Dakota was thrown open in February, 1890. Colorado is settled except in the northwest and east central parts.

THE PEOPLE.

The principal nationalities are well represented in this region, though the larger part of the population

claims American parentage and English blood. The last census shows the natives of the Scandinavian nations are found in considerable numbers in North Dakota, South Dakota, Minnesota, Nebraska, Iowa, and Kansas. Considering these States, they show the largest per cent of total population in North Dakota, 18.73, and the lowest in Kansas, 1.54. The Germanic nations are strong in all the States above mentioned and also in Missouri and Texas. They form the highest per cent of the total population in Minnesota, 9.93. Louisiana and Arkansas have but few representatives of either the Scandinavian or Germanic nations.

New England has had a remarkable influence upon the population, institutions, and industries of the Northwest. Iowa owes much to New England, and the Dakotas drew largely from Iowa and Wisconsin. Maine sent a large number of her lumbermen to utilize the extensive forests and remarkable water-power of Minnesota. The work of the New England emigrants in Kansas is a matter of history.

Nebraska obtained many of her present inhabitants from Illinois, Iowa, Ohio, and New York, while Kansas secured a large number from Illinois, Ohio, Indiana, Missouri, Iowa, and Pennsylvania. According to the census of 1890, Illinois was the native State of 137,903 people then living in Kansas.

The States south of the Ohio and Mason-Dixon line were chiefly instrumental in settling Missouri and the region to the South. Mississippi, Alabama, Virginia, and Georgia sent many of their citizens to Louisiana and Texas. Tennessee, at present, has the honor of having the largest number of her citizens in Texas, and Alabama stands next. There were 106,678 from the former, and 100,763 from the latter. Oklahoma seems to be common ground, for it appears that about equal numbers are from the North and South.

TRANSPORTATION.

The movement of population into this trans-Mississippi territory was made with much greater ease than into the region immediately beyond the Alleghanies. Into the latter, much of the goods was transported on the backs of animals, and many of the settlers made their way on foot; into the former, the steamboat, the railroad, and the canvas-covered wagon rendered the journey comparatively easy. Few realize what an immense advantage the Mississippi valley pioneer had over the one who pushed into the great forest-covered region of the eastern States or the region just west of the Alleghanies. To find rich land already cleared of timber and stones, was almost beyond the dreams of the eastern pioneer. When we add to this the comparatively little trouble with the Indians experienced in the West, and the ease with which communication could be kept up with the old home and friends, the superior advantages of the later pioneer are apparent.

Wide Tires Do All Claimed for Them.

Elaborate tests of the draft of wide and narrow tired wagons have just been completed by the Missouri Agricultural college experiment station, Columbia, extending over a period of a year and a half. These tests have been made on macadam, gravel, and dirt roads in all conditions, and also on the meadows and plowed fields of the experimental farm. Contrary to public expectation, in nearly all cases draft was materially lighter when tires six inches wide were used, than with tires of standard width. The load hauled was in all cases the same, and the draft was most carefully determined by means of a self-recording dynamometer. The beneficial effect of the wide tire on dirt roads is strikingly shown in some recent tests at the station, the Columbia Herald says. A clay road, badly cut into ruts by the narrow tires, was selected for the test, as presenting conditions least favorable to the broad tire. A number of tests of the draft of the narrow tire were made in these open ruts, and immediately followed by the broad tires running in the same ruts. The first run of the broad tire over the narrow tire ruts was accompanied by an increased draft; the second by a draft materially less than the original narrow tire, third by a still greater decline and in the fourth trip the rut was practically obliterated and filled. In another trial, when a clay road was so badly cut into ruts as to be almost impassable for light vehicles and pleasure carriages, after running the six-inch tires over this road twelve times the ruts were completely filled, and a first-class bicycle path made.

Students in agricultural colleges everywhere will be pleased to know of the success of John Schulte, a Nebraska farmer boy who graduated from the college at Ames, Ia. He has just secured, after a severe competitive examination, a responsible position in the Agricultural Department at Washington, a department which must ever open wider and wider the door of opportunity to scientific agriculturists. In farming, as in every other calling, there is "always room at the top."—Farmer's Voice.

Calendar.

1896-97.
Fall Term—September 10th to December 19th.
Winter Term—January 5th to March 27th.
Spring Term—March 30th to June 10th.
June 10th, Commencement.
1897-98.
Fall Term—September 9th to December 18th.

To School Officers.

The College Loan Commissioner has funds now to invest in school district bonds at par. The law requires that no bonds be sold at par or less without being first offered to the State School Fund Commissioner and the State Agricultural College. Address

GENERAL LOCAL NOTES.

The flower garden, with its wealth of bloom, is just now the most attractive spot about the College grounds.

Mrs. Kedzie addressed the Young Peoples' Society of Christian Endeavor at the Presbyterian Church, last evening, on the "Cathedrals of Europe."

Capt. J. W. Temple of Rockford, Illinois, was a visitor at College one day last week in company of Judge Harper. He is visiting with the family of S. M. Fox.

Mr. Eversole spent several days here last week and gave bond for his contract for the building of Domestic Science Hall. Work will begin on the excavation as soon as the contract can be let.

The local strawberry season is here. The first picking of any consequence was done Saturday, the varieties being Warfield, Bennett, and Luther. A large crop is promised, with favorable weather.

President Fairchild delivered the Memorial Day address at the M. E. Church yesterday afternoon. It is generally spoken of as strong and timely and abounding in helpful suggestions for the heroic life we all would live.

The Manhattan Horticultural Society will meet on Thursday afternoon at half-past two o'clock with Prof. Popenoe, on College Hill. Papers will be read by Prof. Popenoe on "Hardy Garden Flowers," and by Mrs. Kedzie on "The Value of Vegetables to the Cook."

Prof. Emch writes from Biel, Switzerland, that he is well in harness, teaching twenty-nine hours a week in descriptive geometry, perspective drawing, and graphic statics. He still has a warm place in his heart for our country, and hopes for the sake of his little son to some time find a home here.

The Catalogue of the State University, just received, shows growth in attendance as in general equipment. The summary gives attendance of 1004, although the catalogue names but 866, the remaining 138 being special students in music and painting. These represent 79 counties of Kansas in numbers from 1 to 245 and 17 other States.

For eighteen years the Ottawa Chautauqua Assembly has pleased people of our State and charmed strangers from abroad with its great and grand educational, spiritualizing, and pleasure-giving work. And this year is not to be an exception in its usefulness and power. No better program of lectures, instructions, or entertainments has been given than that which the managers have prepared for this year.

The State Agricultural College was represented by Professor A. B. Brown. In speaking to a *News* representative, Professor Brown said he was much pleased with the work of the Jubilee. He had previously been kept away on account of having commencement work on hand each year. This year, however, he determined to spend a few days at the Jubilee. Professor Brown, beside being in charge of the Musical Department of the Agricultural College, is President of the Kansas Conservatory of Music at Leavenworth. He was a former teacher of Miss Kate Blount, who won in the violin contest here two years ago.—*Hutchinson News*.

The preparation of copy for the Annual Catalogue, the printing of which is deferred by order of the Board of Regents, shows an increase in attendance of 80 over any former year. The summary is as follows:—

	MEN.	WOMEN.	TOTAL.
Post-graduates.....	18	19	37
Fourth-years.....	35	27	62
Third-years.....	38	31	69
Second-years.....	107	58	165
First-years.....	287	101	388
Special.....	4	2	6
Total.....	489	238	727

The Ag. Party.

A few days ago the hearts of the Second-year boys and girls were gladdened by the announcement that the long ago promised "Ag." party would be held May 18th. Extensive preparations were made on all sides, especially by some boys who found it simply impossible to get a partner on such short notice. The evening was an ideal one for the meeting, and at an early hour merry groups began to arrive at the home of Prof. Georgeson. Before long the house and lawn were full of young people, who enjoyed themselves as only Sophomores can. Familiar games, in which Prof. and Mrs. Georgeson took part, were played. It was a pleasure to hear the Professor tenderly calling to his "Ruth," or to see him trying to catch the pretty girl who dropped the handkerchief for him. Later in the evening excellent refreshments, consisting of ice cream, cake, and

strawberries, were served. After another lapse of time well spent in fun and frolic, the young folks began to bid good night to the host and hostess, all agreeing that the "Ag." party was a grand success, and one of the most enjoyable features in a Sophomore's life.—*Herald*.

GRADUATES AND FORMER STUDENTS.

D. W. Working, '88, has moved to Denver, where he may be addressed at postoffice box 432.

Mrs. Mary Rees-Tomlinson, Second-year in 1886-7, is visiting the family of her brother in Manhattan.

H. W. Jones, '88, Principal of the Alma Schools, will deliver the Decoration Day address at that place.

B. Buchli, '84, V. I. Sandt, '94, and Lucy Ellis, '95, took the State teachers' examination at College last Thursday.

Mary Lyman, '94, and Lorena Clemons, '94, have leading solo parts in the musical concert this evening at the Opera House.

Mabel Selby, '95, and sister, Jennie, Second-year in 1892-3, have returned from Enid, Ok., where they have been for about a year.

E. A. Allen, '87, goes next week to Albuquerque, N. M., as Superintendent of the Indian School of 400 pupils. This is a promotion from the schools at Perris, California.

G. R. Hopkins, First-year in 1892, stopped over between trains on Wednesday. Mr. Hopkins is in the cattle business at his old home near Garnett, and now makes a trip to Colorado Springs for both business and pleasure.

W. W. Robison, student in 1889-90, writes from Alburgh, Vt., where he is General Manager of the Grand Isle Creamery, of continued interest in the College. He recently completed the course in dairying at the Vermont College.

E. F. Nichols, '88, Professor of Physics in Colgate University, Hamilton, New York, was around College Thursday. He has just returned from a three years' course of study in Germany, and was called west by the sickness of his brother at Leavenworth.

M. A. Carlton, '87, assistant in the Division of Vegetable Pathology, United States Department of Agriculture, is expected here in a few days. He carries with him a hint of a tempting offer soon to be made to a member of our Faculty by the branch of the department he represents.

The Topeka *Capital* says that Prof. Osborn, beyond question the foremost paleontologist of America, complimented, most highly, the work and management of S. Wendell Williston, '72, head of the department of paleontology at the State University, congratulating Prof. Williston on the fact that he had more students and better work in this line than could be found in any other institution in the United States.

The Sterling (Colo.) *News*, in a notice of the Rain-belt Experiment Station at Cheyenne Wells, says of a graduate of '87: "The Superintendent, J. E. Payne, is a graduate of the State Agricultural College of Kansas. His training for his position commenced, however, at his birth on a farm in Johnson County, Kansas, and has continued both practically and theoretically to the present. After graduation at college, he went to Mississippi and spent a year upon a plantation, a part of which he farmed as a renter. Then he returned to college and took a two-years' special course in agricultural training, on its completion, the degree of Master of Science. The State of Colorado is fortunate, indeed, in securing his services."

Our Bondage.

The last chapel lecture of the term was given by Prof. Olin on Saturday afternoon on the theme "Our Bondage."

We are all more or less under bondage. This being under bondage to superstition is what I want to speak of first. We do not find as many superstitious persons today as years ago, so we may safely say we are advancing, at least along this line. What possible difference could the rooster's crowing before the door make with the neighbor's calling sometime in the near future? Or what connection is there between the point or head of a pin and good and bad luck? Still there are persons who have never known it to fail. Why should Friday be considered as such an unlucky day, when we know that equally as many great and good things have happened on Friday? Who can trace the intimate relation between a broken mirror and immediate death in the family? My sympathy goes out for that unlucky number, thirteen. The poor, innocent thing has had a hard life, so many trials to pass through, so many battles to fight. Why should it be singled out as the one number to be dreaded and made an object of suspicion?

Our bondage to fashion is displayed everywhere, more by women than men; still some of both sexes firmly believe that "We may as well be out of the world as out of fashion."

It is a serious matter when individuals are in bondage to public opinion. The fear of what men will say has checked many a good thought and action from being put forth that would have otherwise placed standards and ideals much higher than they are today.

Again, there are people who are in bondage to the past. We may revere the past, but should not allow things once thought or said to prevent us from think-

ing or speaking in the present, which is all so truly expressed by Emerson.

Through fear we are under bondage, and just so far is our enjoyment limited.

What, then, is the remedy for all this? Education, because it is the means of making us free from bondage. How? By truth. Yes, truth is the secret of our bondage. "Truth shall make you free." Achievements have been made more rapidly in the last four centuries than ever before. This, young man and young woman, is for you. All that lies before you was there from the beginning. X rays, having the power to picture the bones of a man's hand, is a recent discovery, but were not the sun's rays there from the beginning? Truth is universal. No truth is trivial. Truth is a unit; rays from it may reflect and refracted but they all terminate at one common point. Its business is to strengthen, and should be the foundation of every life and society. Lastly, truth is eternal. God's purposes will be carried out. Never despair, but have faith and follow truth.

G. M. L.

Commencement Week Program.

SATURDAY, JUNE 5.

Entertainment before the literary societies at 8 P. M. by Herbert A. Sprague.

SUNDAY, JUNE 6.

Baccalaureate sermon at 4 P. M. by President Fairchild.

WEDNESDAY, JUNE 9.

Class day exercises for invited guests of class of '97 at 8 P. M.

THURSDAY, JUNE 10, COMMENCEMENT DAY.

Annual address, "Present Day Problems," at 10 A. M. by Dr. Washington Gladden, Columbus, Ohio.

Military drill at 2:30 P. M.

Business meeting of Alumni in chapel at 4:30 P. M. Alumni reunion, and reception for invited guests, 8 P. M.

Examinations on Tuesday and Wednesday, beginning at 9 A. M.

Public conveyance to and from College in connection with all exercises.

Dinner on Thursday, served in armory, by the Woman's Relief Corps of Manhattan.

Language Requirements in Civil Service Examinations, Department of Agriculture.

Washington, D. C., May 12, 1897.

Pres. Geo. T. Fairchild, State Agricultural College, Manhattan, Kansas:—

Dear Sir—Your letter of the 8th inst., referring to the proposed requirement of French or German in the Civil Service examinations for positions in this Department, is received.

Upon inquiry, I find that the proposed requirement was that the one modern language might be French, German, Spanish, Italian, or Danish, etc. This modern language requirement was only as a minor subject, so an examination in it would only amount to little more than ability to read the language and make translation of scientific articles. This examination, if perfect, would count only for 10 out of 100, so it would not cut any very great figure. If the candidate did not take it, would count zero on the subject, but his not taking it would not debar him from the examination. On the other hand, a person could take as many of these minor subjects as desired and get a standing on the record of the Commission for each one passed. Moreover, it was only intended to require one modern language from applicants for positions in the scientific divisions, like chemistry, botany, ornithology, and mammalogy, bacteriology, etc.

I have requested the Civil Service Commission to more carefully define the matter so as to prevent future misunderstandings, and to give a list of the scientific divisions for which such modern languages may be required. Outside of this list there are a number of important divisions, such as the Weather Bureau, Bureau of Animal Industry, Division of Statistics, etc., which are our largest bureaus, for which no language is required. Very respectfully,

JAMES WILSON,

Secretary U. S. Department of Agriculture.

First Year Party.

Monday evening Prof. and Mrs. Georgeson threw open their doors to the First-years. About eight o'clock the reception committee began receiving at the south entrance; in a short time the parlors were crowded, so the company went out on the lawn. Circles and companies were formed for all kinds of lawn games. Japanese lanterns hung from every tree, but about half past nine the moon rose, dispelling all fears of an unpleasant evening.

Everybody seemed determined to enjoy himself to the utmost, so that games were in progress in all parts of the lawn until refreshments were brought out. This was one of the most pleasant features of the evening. Everyone enjoyed the excellent ice cream and cake, for which credit is due to Mrs. Kedzie. After refreshments, all seemed to feel like talking, so a general social talk followed. Between eleven and twelve, merry crowds left the Professor's pleasant home declaring that First-years can have a very pleasant time together when they go to the right place.—*Herald*.

COLLEGE ORGANIZATIONS.

May 22nd.

Notwithstanding the fact that this is the busy season, and that the pleasant spring evenings invite to other things, President Wheeler called to order a full attendance of Websters. After prayer by Mr. Pierce, the question, "Does a College Education Benefit the Farmer?" was debated affirmatively by Messrs. Blair and Pettis, who showed by examples the many ways in which a college training helps the farmer. On the negative, Messrs. Haney and Nelson reminded us of the money and time required to obtain an education, and of the poor opportunities afforded by the farm of applying it. The Society decided the affirmative arguments the best. Mr. Lehmkuhl gave a well-chosen declamation, and Mr. Peck a piano solo. The Webster Reporter by Mr. Neilson took for its motto, "Give credit to whom credit is due; show preference to whom preference is due; quick in defense and slow to reproach." The paper was a very bright one. It viewed snakes from a town boy's standpoint, told a touching and thought-provoking story entitled "Only a Bum," and had much to say of gymnastics and of physical development in general. After recess, Mr. Harvey, in an essay, served us with a delicious plate of oysters. Mr. Pope gave a pleasing declamation, and Mr. Horn read a paper reviewing the early life of Daniel Webster. The Critic's report and usual business session followed.

C. B. W.

May 22nd.

The afternoon of May 22nd was a time to be remembered by the Ionians for years to come. It seemed that the program was well fitted to follow the most excellent Chapel address. It was Faculty day, and a number of the Faculty and Faculty ladies were present. The first one to speak was Mrs. Anna Fairchild-White, who spoke of the Ionians of "the used to be" and compared them to the Ionians of "now." She was followed by Mrs. Hood, who spoke very kindly of the Society. Mrs. Willard's little talk was of great interest, bringing to us many new and beautiful thoughts. The Oracle was presented by Miss Copeland. Miss Rhodes entertained us with a piano solo. Misses Harper and Rupp were present, but both declined to "say a word." Prof. Hood was next called upon and heartily commended the "particular advancement" of the Ionian girls. A talk to the visitors was given by Miss Wilhelmina Spohr, and was responded to by Mrs. Kedzie in her own sweet way. She spoke of "her girls" of the days gone by, of the present days, and of the days to come. President Fairchild next spoke to us of the Society in its infancy and of its growth in after years. The Society is justly proud of its God-father. Mrs. Georgeson's talk brought each Ionian girl to see what was her's to be and wherein she might seek her ideal womanhood. She closed this little heart-to-heart talk with the words of Little Lord Fauntleroy: "God bless you all the day, and keep you through the night." This ended the program. A recess of two minutes followed. The usual business was then attended to, after which the Society adjourned. G. S.

May 22nd.

Only a few members were present when Vice President Farley called the Hamilton Society to order, but one by one they came in during the evening until the hall was almost full. After prayer by S. J. Adams, O. H. Elling read a very interesting essay on the Mammoth Cave, in which he told us about its history and discovery. Mr. Kinsley in an interesting manner told a more interesting story. Mr. Pratt gave us one of his comic songs. "The Growth of our College" was the subject of an oration by S. J. Adams. Edgar Amos's discussion on "This Generation of Rubber Necks," with some good hints for young men was a success. The oration, "Radicalism and Conservatism," by F. D. Waters was very good. F. E. Johnson had some very interesting news. H. M. Thomas was called to the chair, and G. F. Farley delivered one of his best orations on contentment. It is against the nature of men to be contented. His greatest enjoyment consists in striving forward to higher and greater success. Do not be contented in being in the procession, but lead it. Let your motto be, Ever onward and upward. After a select reading by A. J. Leonard, W. Poole appeared with a number of the Hamilton Recorder which was a credit to its editor and to the Society. The motto was, Get off the fence. After a short business session which ended in holding several negligent members, the Society adjourned.

B. H. S.

May 22nd.

The Society chairs were nearly all occupied Saturday when President Dille took her place. Little Miss Voiles very gracefully entertained with a vocal solo. After prayer by R. W. Clothier, a recitation entitled "Responsibilities of our Republic" was given by Cassie Dille. "Nothing to Wear" was the subject of a reading by Kate Manley. Following a vocal duet by Misses Etta and Ella Barnard was the debate, affirmatively argued by G. D. Huldett and W. C. Crowl, and negatively by F. Crowl and Mr. Collins. The question was, "Should the required industrials be made elective?" The decision was in favor of the affirmative. The vocal quartette composed of Messrs. Clothier, Shellenbaum, Hulett, and Crowl was enjoyed. Miss Agnue presented the Gleaner, which contained good contributions. Professor Failyer was a welcome visitor, and gave a talk which the Alpha Betas appreciated. After recess was a violin solo by Miss McCall, and after the business session Society adjourned.

The Pros and Cons of Life on the Farm.

In the past, one of the first wishes that you would hear from the lips of young people who lived in the country was, that they might leave the farm and go to town. The reason of this in the majority of cases was pure ignorance, and nothing else, for they possessed the erroneous idea that the city was the only place where they could amount to anything. There was, perhaps, a good deal of truth in this in the case of the average farmer of several years ago, when towns were far apart, settlers scattered, no schools, money scarce; then opportunities for improvement were truly few and far between. But now it is far different. Today, in a country where it is settled at all it is thickly settled; towns and even cities are near, and as for ready money, the farmer has as much of it as the average man in any other profession.

Living in the country used to be considered a disgrace, and such people were classed as "greenhorns" and "country jakes." But the fact that some of the greatest men and women of the nation were born and lived part of their lives in the country, has changed that prevalent idea, and now, instead of being a disgrace, it is considered rather in the light of an honor. And so the general view of country life is different now than it was forty or even twenty years ago. Farming today is considered a science, and people are beginning to understand that it takes brains to make a success of it, as well as any other business. And they are also beginning to realize that the man or woman of today who lives in the country is just as well educated and as refined as the average person in the city.

The reason why people have left the farm in the past, and the reason why they leave it now, has been and always will be the same. Some are seeking fame, some riches, and some education, and they do not realize that they can acquire them anywhere but in the city. But why not? As for fame and education, I should think a glance over the history of the world would answer that; for in all cases of worthy pursuits farm life has proved an advantage instead of a disadvantage. And as for money, look at the working man in town, then at the one in the country, and tell me which one possesses the greatest financial opportunities. To be sure, there is no colossal fortune to be made on a farm, but is there anywhere if it is made honestly? And then, even in these hard times, what does the farmer know of the struggles and mobs; of the loss of position, on which, maybe, his bread and butter depends; the accumulation of a stock of goods that no one will buy, and the ever-recurring rent of residence and place of business.

But besides all this, what can be said in favor of the farm, in regard to what all mankind is seeking, namely, happiness? If wealth, education, fame, or the combination of them all constitutes happiness, then the country surely stands equal with the city. But if peace, quiet, congenial society, and a beautiful home are also a part of that of which we are in pursuit, then the country is far ahead; for true friends constitute real society wherever you are, and a beautiful home can be made easier in the country than in the city. It costs the city gentleman as much to beautify the interior of his dwelling as it does the one in the country, and where is there a person in a town who can equally grace the outward appearance of his home at the same expense?

Leaving all these advantages, however, there is still a greater benefit to be derived from a country life. There is always a feeling of nearness of Divinity that is an unceasing pleasure to those who are lovers of the grand and beautiful. And in this manner we are led "from nature up to nature's God." Sometimes when I step out into the open air, view the beautiful blue sky, hear the birds sing, and listen to the leaves and grasses as they sway and rustle in the breeze, I can understand why some of our greatest poets, authors, painters, and musicians received the inspiration for their grandest works in the fields and forests; for they were very, very near to the heart of nature, which is the source of all greatness. There is, of course, no place in the world that is perfect. Every position and walk in life possesses disadvantages as well as advantages. And certainly no sane person will try to convince people that the country is different from the city in this respect. There are in fact a great many improvements to be made.

Since discussion is one of the first steps towards the remedying of an evil, let us talk over a few of them in a practical way, and see if we cannot get some light upon the questions that bother us. I think that one of the first changes which ought to be made in farm life is in regard to hired help. There is hardly a man who farms 160 acres but who has to have at least one and sometimes two hands the year round. Of course it does not need to be so, but at the present time the average man who works out by the month in the country is anything but what a cultivated family wants to associate intimately with. Now, such a state of affairs, besides destroying all privacy and bringing questionable influences into the home, makes a slave of the wife and mother. The way to manage it is to have a tenement house on every large farm, where the extra help could be boarded, say, by a man and his wife, the man working regularly on the farm. If this could always be done, it would insure the farmer help that could be depended upon, and would remove one of the greatest difficulties in the way of happy country life.

The second and greatest change would be an educational one. You will sometimes hear the opinion expressed even now, and most farmers used to believe it, that an educated man or woman has no business on a farm, and they used to think that a person ought to start out and become a doctor, a lawyer, or a minister when he has attended school a few terms. Now such an idea is wrong, and it is because of this that so

many bright young people flock to the city, and it is the chief reason that the finger of scorn has so often been pointed at the country; for if ignorance was not there, such an opinion would never be held for a moment. Young people should not be taught that the farm is the proper place for them only when they fail at everything else. Such teaching, besides giving a wrong impression of country life, instills into their minds incorrect ideals of gentility which they never get rid of. In reality, the same reason that leads men to educate in the city ought to lead them to educate in the country. Every person possesses an intellect, and it is his duty to develop it, no matter where he is. If all country people believed this, their sons and daughters would receive thorough educations, and they would come back to the farm, realizing that a broadened mind and a pure heart can ennoble and raise any work. If such were the case the world over, the farming class would occupy its true position. Its members would more often be found in the halls of Congress to speak for themselves, and they would also be found in artistic, literary, and scientific circles; for you know that where an ignorant person sees nothing, and educated one realizes the presence of God.

With the staff to guide one which knowledge gives, there is no happier life in the world than a farmer's. Of course, at present country life is not all we would like to have it in every respect, but it is constantly improving, and along the lines which I have spoken of, too. It is quite the thing nowadays for the nicest and most highly educated city people to stay in the country during the summer, and possess residences there if they can afford it. The thought of the world is constantly broadening, and after a while our dream will be realized; for the life which we think longingly of in the country is surely the ideal one and perfection. All mankind, however, cannot live in the country, for civilization of the world will not permit it. The city is undoubtedly the center of culture, and is alike the place sought by those who are seeking enlightenment as well as those who are frivolous and are seeking amusement only. But although this is true, it does not necessitate a residence there for those who are pursuing the reality instead of the shadow. There are special lines that have to be followed by some one, and to those who are certain that they have a call in those directions I would say, leave the farm, and may success accompany you; but to others I would say, make the most of all opportunities, travel and see the world, become educated, and make your life as broad and grand as possible, but stick to the farm.—Correspondent *Prairie Farmer*.

Slipshod English.

Perhaps the crucial test of thorough knowledge of English may be found in the use of the verb "lie," with its various participles. In a modern story occurs the sentence, "The angel lain in in her arms." Perhaps a majority of decently educated people talk of "laying down to rest," or remark that they "laid down." As for "will" and "shall," only the finest literary sense seems to be adequate to their proper use. "Gotten" is in disrepute in good quarters, and yet some of our leading writers persist in using it. Mr. Howells begs us not to say "I don't know as," and let us hope that all will heed his request. But Mr. Howells has been known to use "loan" as a verb, and he gives his unblushing sanction to "lunch" as a noun. It is gratifying to know that he, the "dean of literature" in this country, makes a plea now and then for the purity of our language. We fear that his natural inclination is toward a dangerous liberality.—*Leslie's Weekly*.

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VALUE OF FORESTS. I.

BY W. L. HALL, '98.

[A Thesis prepared in Special Forestry Class, Fall Term, 1896.]
I.—IN THE FORMATION OF HUMUS.

ON all portions of the earth covered by vegetation, there accumulates in or on the surface soil a reddish brown or dark substance composed of the remains of plants, and which has received the name humus. The amount of humus which occurs in the soil, through the natural processes of decay, varies greatly according to the nature of the vegetation which is produced upon the ground. From the soil most scantily covered with grass, through the well-coated prairie and meadow and brushland, we find a continual increase of organic matter until we reach the maximum in the dense forest-covered areas.

Forests are the most active of all agents in creating a supply of humus. The annual crop of leaves goes to this end entirely, and the amount of matter furnished by the decay of wood from trunks and branches is enormous when a great forest is considered. So that in woodlands that are not fire-swept there is continually being added an amount of organic matter far in excess of the needs of the plants which are produced. The matter thus returned to the soil does not decay at once and become incorporated in the make-up of the soil. The leaves fall and cover the surface often to a depth of many inches, and lie sometimes for many months, and the woody portions of the plant for years, before complete decay. While in this process of decay the effects of the covering are numerous and deserve discussion. They will be noticed under the natural divisions of physical and chemical effects.

Considering the former, it may be said that one of the obvious features of a surface cover of leaves is that it forms a mulch of great value to the soil by preserving it from exposure to the weather. The rain, falling as it often does with great and uninterrupted force upon the bare surface, has a strong tendency to puddle the loose surface layer, and, if the ground is sloping, wash it away, or upon a level surface pack it so as to render it unwieldy for cultivation and unfit for plant growth. Where the water falls upon an ample coating of humus, the effect is different. The leaf-bed receives the supply without being influenced by it, breaks its force, and allows it to percolate gently through into the earth.

The even distribution of humus over the surface and throughout the upper layer of forest soils, renders the rapid escape of the water by surface drainage impossible by holding it in check at all points. The tendency to form miniature currents is resisted everywhere, and those that do form make their way but a short distance before they are retarded by the formation of a clog or dam of leaves and branches, which are borne down by the current itself. The growth of underbrush does much to retard such currents, and where they are formed they do small damage in the way of eroding the soil, for the reason that forest soil is always penetrated by a more or less complete network of roots, which holds the soil in place against almost any force that water exerts against it. Instances of surface erosion are seldom found in forest areas.

The water that is received upon the surface is directed downward to the soil and is absorbed. Its escape in this manner is rendered easy by the penetration of roots to great depths, which opens a course for the water. These roots dying, in the course of time decay and give room for still more rapid escape. Again, the humus greatly increases the power of the soil to absorb water. This increase is supposed to be due to the increased porosity of the soil. The porosity increases the absorptive surface of the soil, and the power to absorb water increases accordingly. The same reason operates to enhance the power of the soil to absorb vapors of water from the atmosphere. Experiments by Schubert show that humus far exceeds any of the earths in its capacity of taking water vapors from the atmosphere.* Not only this, but soils vary in absorptive power in the degree that they are mixed with organic matter.

The envelopment of the soil within a covering of humus also lessens the evaporation which takes place in exposed soils. This is effective since the surface is not crusted as in drying by exposure to the sun and wind. But if the direct evaporation is lessened, it is more than proportionately increased by the evaporation which takes place from the surface of leaves exposed to light in the forest above, so

that the whole loss by evaporation is probably increased.

A soil that is rich in humus always takes a very dark or black color which renders it capable of receiving and containing much more heat from the sun than a soil of lighter color. Experiments have shown that black soils vary less with change of weather than lighter ones. Hence they do not present either of the extremes of heat or cold. The oxidation of organic matter going on within a soil rich in humus gives an addition to the heat of forest soils. These causes both operate to produce a soil much warmer in winter and much cooler in summer than ordinary soils.

Of the chemical effects of a covering of humus, it may be said, that it induces a continual supply of moisture at the surface of the soil where the incorporation of humus with the soil must go on. The presence of moisture is an essential condition in the ordinary processes of oxidation. The decay of all vegetable matter would take place very slowly without moisture, and the rapid transformation of leaves and wood constituting humus into soil would be lessened so materially as to be of little benefit.

In the process of decomposition of humus, certain organic acids, such as humic and ulmic acids, are formed. These have power to decompose the mineral salts of the earth—potash, lime, and phosphorus in their various compounds—and render them available for plant food. In this way the mineral food supply of plants is increased. Certain natural, organic salts known as humin and ulmin, having the same composition respectively as humic and ulmic acid, are formed and are thought to furnish valuable elements of plant food.

While humus in its distinct stages is of no value to plants as food, and is never appropriated for that purpose, it does, through decomposition, furnish some of the most valuable elements of plant food. Throughout the process of decay of all organic matter there is an elimination of carbon-dioxide which is largely used in the growth of all plants. The carbon dioxide, made free by the decomposition of humus, reaches the plant in one of two ways. It dissolves readily in water, and may be taken up in solution by the roots of plants and carried upward by the circulation; or it may evaporate into the air and be absorbed by the leaves of plants under action of the sunlight.

Of the other elements produced by the decomposition of humus, nitrogen is the most important. It is a product in the decay of all albuminoids, and is generally found in increased quantities in a soil rich in organic substances. The humus of the soil thus forms a reservoir for the storage of these valuable elements of plant food. In these various ways the covering of humus coming from a forest growth serves to make the soil more adaptable to the use and requirements of man. The beneficial effects should receive the highest appreciation because they are unaccompanied by any deleterious effects whatever. Without any injury, they are of great benefit.

II. IN THE PROTECTION AFFORDED TO MOUNTAIN AND HILLSIDE AGAINST DENUDATION.

That forests have a great value in the protection they afford to mountain and hillside against denudation by erosion would be inferred from the thought that they form the source of supply for the coating of humus upon the earth, which is so effective in breaking the erosive power of the water in its descent. The influences which a forest growth sets to work against denudation of slopes and hillsides have been indicated as the layer of leaves, the network of roots, the interposed trunks and branches, and the undergrowth. When these agencies are in operation there is scarcely any danger of harmful erosion, even on the most precipitous hillsides. So fully they performed their services in the original forests that man failed to realize the power that was thus held in check from dangerous operation.

He did not appreciate that by cutting away the forest cover from hill and mountain side that he would let loose a force which would come down in torrents, scathing the hills and devastating the valleys. Soils that have required centuries in formation may be ruined by a single flood. Every country inhabited by civilized man bears evidence of innumerable instances of untimely deforestation. In Asia and Europe, the results have been seen longest and in greatest severity. The great mountain sides of Europe that were once covered by continual forests

* How Plants Feed, Johnson, page 162.

have been laid bare and defenseless by the woodman's ax. The rapid drainage thus made possible has carried on to great extremity the desolation ruthlessly commenced.

The entire Mediterranean coast has been denuded of forests and reduced to almost barrenness. On the lower slopes of the Austrian Alps, where the paths of squirrels through the tree tops were once unimpeded for miles, rash lumbermen and forest fires have made the way for descending torrents and these have removed the soil to the barren rock over vast areas. Higher upon the mountain sides the force of the water has torn out rocks and coarse gravel, carrying them down upon the fertile valleys below, bringing ruin upon them also. Of regions farther west the same story may be repeated. The Italian Alps have suffered ravages for centuries. In the first century Pliny wrote, "Destructive torrents are generally formed when hills are stripped of trees." He had noticed the destructive course and marked the results. "The stormy flood deposits of the Alps have destroyed hundreds of thousands of acres of table land. In the Province of Ardeche alone, seventy thousand acres, one-eighth of the entire area, was rendered useless and depopulated. Roads, buildings, aqueducts, and bridges were inundated or carried away before the rocky deposit that spread itself in a fan-shaped area over the valley. The most valuable timber of Spain was cleared away in the days of her rich mines. Her hills and valleys have ever since suffered in consequence.

The history of France in recent years has been a record of the destructive powers of mountain torrents. The great floods which denuded her hillsides would have been impossible had the forests not been entirely removed. The sediment from mountain sides has been spread upon the valleys, covering eight million acres of fertile land. In 1860, the people of France began a system of reforestation, on which has already been spent forty million dollars and which will require a century yet to be complete. But already some good effects are to be seen. Austria and Italy are also at work reforesting. The resetting of forests on the denuded hills is necessarily slow and expensive work. Some good effects are now visible from their efforts, and in the course of time the worst of the ravages may be overcome.

In our own country, we have not yet seen in the worst degree the direful effects of deforesting hillsides. Still, our progress toward such an unpleasant spectacle has been continuous, and will reach that certain end if continued. Already evidences enough have been seen to warn the thoughtful against further deforestation except under careful direction.

The banks of the Ohio River and many portions of the South were once covered with fine forests of oak, maple, walnut, and pine, and for a time after the removal of the timber, bore immense crops of cereals, but since have washed and furrowed into gullies and have been abandoned. In New York and New England, the effects of forest destruction are equally apparent. A great deal of the land has been abandoned because of its becoming furrowed until unfit for cultivation and the good soil washed away. While there have been some attempts to regulate the destruction of timber in the United States, there has as yet been but little done toward reforestation. In some individual cases, it has been accomplished, and the results of these cases of success are most gratifying. Forest conditions have returned. The force of falling rain is broken by the intercepting branches and leaves, and the water is dropped easily through or directed down the trunk into the ground instead of washing away on the surface.

We are brought to see the great value of forests against denudation by observing the increasing loss which occurs when the forest covering on the hill and mountain sides has been removed. To maintain such a covering protecting our slopes where it already exists and to obtain it where it does not exist, should be the desire of all thoughtful and well-meaning men.

THE DEPARTMENT OF MATHEMATICS.

BY PROF. D. E. LANTZ.

THE Department of Mathematics in this College, as now constituted, embraces the teaching of the following named branches: Algebra, three terms; plane geometry, one term; solid geometry, one-half term; trigonometry and surveying, one term; field work in surveying, one term; and a year's elective work in analytic geometry and calculus for students who extend their under-graduate work to five years, and for post-graduate students. All the classes recite five times per week except in the field work in prac-

tical surveying, where but two hours per week are required.

The above studies do not, however, include all the mathematical training provided by the College. There are two and one-half terms in geometrical graphics and a term in general mechanics, required of all students for graduation, and a number of electives in which applied mathematics is a prominent part of the work, but the instruction in these does not fall to the Department of Mathematics.

The studies in this department include the work of all first-year students for the entire year, the work of the second-year class for the fall term, and one-half the winter term, and the work of the third-year class for the fall term, all recitations being one hour per day. The enrollment in the department and the number of divisions reciting is thus greater than in any other department of the College, unless it be the Mechanical Department by including the industrials. For the year just closing, the classes in mathematics have been as follows:—

Fall Term.—Algebra, first term, 5 divisions; algebra, third term, 1 division; geometry, plane, 2 divisions; trigonometry and surveying, 2 divisions; surveying practice, 16 divisions (2 hours per week); analytic geometry, 1 division; arithmetic, 2 divisions.

Winter Term.—Algebra, first term, 2 divisions; algebra, second term, 5 divisions; geometry, plane, 1 division; geometry, solid, 3 divisions; differential calculus, 1 division; arithmetic, 2 divisions.

Spring Term.—Algebra, second term, 2 divisions; algebra, third term, 4 divisions; solid geometry, 1 division; integral calculus, 1 division; surveying, special, 1 division (2 hours per week); arithmetic, 1 division.

It will thus be seen that the actual teaching required to carry on the work of this department was for the fall term, 102 hours per week; for the winter term, 70 hours per week; and for the spring term, 47 hours per week. There might perhaps be some plan devised by which the work of instruction would be more evenly distributed between the several terms.

With the increased enrollment in College, many of these divisions are entirely too large to accomplish the best results for the students. This is particularly true of some of the divisions in algebra, geometry, and trigonometry. In the last subject, the enrollment for the past three years has numbered above eighty, and the second-year class of the present year indicates a class of nearly one hundred for next year. It will be impossible to instruct them in less than three divisions. During this year, some of the algebra classes have had nearly fifty enrolled, and one of the classes in plane geometry numbered thirty-seven.

Twice during the past dozen years our College course has been strengthened and the requirements for admission increased, and each time the Department of Mathematics has made some gain by the change. At present, the most encouraging outlook for the department lies in the elective work allowed in the extended course. The class in analytic geometry, already promised for next year, numbers a dozen students. The work is required of students who complete special courses in physics and engineering.

The equipment of the department in apparatus is meager when the size of the classes is considered. Of surveying apparatus, we have four transits, three levels, and one surveyor's compass, but the supply of chains and minor apparatus is hardly sufficient for our needs. The inventory of the Department approaches nearly \$1,500.

Why Grant Never Swore.

Gen. Horace Porter, in his "Campaigning with Grant" in the *May Century*, says: "While sitting with him at the camp-fire late one night, after every one else had gone to bed, I said to him: 'General, it seems singular that you have gone through all the rough and tumble of army service and frontier life, and have never been provoked into swearing. I have never heard you utter an oath or use an imprecation.' 'Well, somehow or other I never learned to swear,' he replied. 'When a boy I seemed to have an aversion to it, and when I became a man I saw the folly of it. I have always noticed, too, that swearing helps to arouse a man's anger; and when a man flies into a passion, his adversary who keeps cool always gets the better of him. In fact, I could never see the use of swearing. I think it is the case with many people who swear excessively that it is a mere habit, and that they do not mean to be profane; but, to say the least, it is a great waste of time.' His example in this respect was once quoted in my hearing by a member of the Christian Commission to a teamster in the Army of the Potomac, in the hope of lessening the volume of rare oaths with which he was italicizing his language, and upon which he seemed to be placing his main reliance in moving his mule team out of the mud-hole. The only reply evoked from him was: 'Then thar's one thing sart'in; the old man never druv mules.'"

Useless Argument.

Lowell gave utterance to a great number of epigrammatic phrases. Possibly no one of them contains more real philosophy than this: "There is no good in arguing with the inevitable. The only argument available with an east wind is to put on your overcoat." What an amount of useless expenditures of breath and words and worry might be saved to the majority of us if we who so heartily accept Lowell's theory would only keep it in mind, and reduce it to daily practice.

In the great trials and sorrows of life, which sooner or later come to all of us, there is a real wisdom in avoiding the argument which we naturally begin with the inevitable. We need not and should not submit to our sorrows, our trials, our disappointments in a desperate, fatalistic, morbid way, but in a submissive, if not a cheerful spirit, accept the inevitable as best we may. If the east wind blows, "put on your overcoat" and face it.

Many in these days and years find their incomes much reduced, their salaries decreased, their plans frustrated. They spend much time and strength and bad temper, perhaps, discussing over and over again the unfavorable situation, when, since it is inevitable, and cannot be changed, it would surely be wiser to cease arguing and expend the time in devising plans to overcome, if possible, these untoward circumstances.

Many young people in our families do not appreciate the intense work necessary on the part of their fathers to earn a generous living; nor on the part of their mothers to manage the households and make the best of everything. Nor do they realize the part of both parents in striving to give sons and daughters not only the advantages of education, but also many of the luxuries and pleasures of life. They frequently grumble and scold because they cannot have what they desire, and what those richer than themselves enjoy. These all should take this good doctrine of Lowell to heart and cease to battle with the inevitable, and meet their circumstances bravely and cheerfully. We cannot change the east wind, so instead of growling about it, let us put on our overcoats and meet it as comfortably as possible.

Weeds.

Weeds are like the poor; you have them always with us, and they always need looking after. They thrive immensely in a dry season because they are in many instances deep rooted, and cultivated crops do not occupy the ground well, thus giving the sturdy but useless vegetation a better chance; and they thrive in wet seasons for the reason that there is so much of the time when the farmer cannot get into the fields to cultivate as frequently as should be done to keep them down. Freedom from weeds requires eternal vigilance; for while there is but one way in which a useful crop can be secured, there are scores of ways by which weed seed are scattered, and when scattered they never fail to germinate as seed of valuable crops often do. The condition of a field with respect to the presence or absence of weed seed in it will often control the use that should be made of it.

All crops are, of course, the better for being on clean ground, but with some it is more important than with others. Weeds, for example, are especially injurious to barley, and it is essential to securing a stand of alfalfa that the land be clean. This is true, too, of all crops that are weak growers in their earlier stages. Some crops are, on the other hand, preferably placed on land that will probably be weedy, because they afford the best way of cleaning it. Such, for example, are corn and potatoes, which require close cultivation throughout the growing season, and buckwheat, which, if sown on soil of uniform fertility, will grow a dense crop that will smother out weeds and grass of almost every description. The weed crop is one that should always enter into the farmer's calculations, for it is always likely to be one of the difficulties in the way of good results.

Labor and Earnings.

Every encouragement is given to habits of daily manual labor during the College course. Only one hour's daily practice in the industrial departments is required; but students are encouraged to make use of other opportunities for adding to their ability and means.

All labor at the College is under the direction of the superintendents of the department, and offers opportunities for increasing skill and efficiency. In regular weekly statements, the students are required to observe business forms and principles, showing from their daily account when and where the work was performed.

The shops and offices are opened afternoons and Saturdays for the accommodation of skilled students in work for their own advantage. Everywhere the student who works wins respect; and it is a matter of pride to earn one's way as far as possible.

The labor of the students in the industrial departments is principally a part of their education, and is not paid for unless the student is employed upon work for the profit of the College. Students are so employed upon the farm, in the gardens or the shops, and about the buildings. The labor is paid for at rates varying with the services rendered, from 8 to 10 cents an hour. The superintendents strive to adjust their work to the necessities of students and give them the preference in all tasks suitable for their employment. So far as practicable, the work of the shops and offices is turned to account for their benefit; and the increasing extent of the grounds and sample gardens brings more of such labor. The monthly pay roll for the past year ranges from \$250 to \$400.

Many students obtain work in the city or upon neighboring farms, and so pay part of their expenses. In these ways a few students are able to earn their way through College. The amount so earned will vary according to the tact and zeal of the student. The majority must expect to provide by earnings outside of term time, or from other sources, for the larger part of their expenses.

The long summer vacation of three months offers opportunity for farm or other remunerative labor; and no one need despair of gaining an education if he has the ability to use his chances well.

Calendar.

1896-97.
Fall Term—September 10th to December 19th.
Winter Term—January 5th to March 27th.
Spring Term—March 30th to June 10th.
June 10th, Commencement.
1897-98.
Fall Term—September 9th to December 18th.

To School Officers.

The College Loan Commissioner has funds now to invest in school district bonds at par. The law requires that no bonds be sold at par or less without being first offered to the State School Fund Commissioner and the State Agricultural College. Address

GENERAL LOCAL NOTES.

New matting adds materially to the appearance of the halls.

L. G. Hepworth is enjoying a visit from his brother this week.

Mr. Wm. Fryhofer of Fancy Creek led in Chapel exercises on Tuesday morning.

Prof. Weida, Professor of Chemistry in Baker University, visited the College on Tuesday.

The southeast campus yields a heavy crop of orchard grass and red clover of which it will be cleared in a few days.

Assistant Entomologist Mariatt had a place on the program of the Epworth League Convention at Randolph, last week.

John Oster of the Junction City High School was looking over the College last week with a view to entering in September.

Among the visitors at the afternoon exercises Saturday were Mrs. Morgan, Mrs. Perry, and Mrs. Wilder, all of Manhattan.

Mr. Griggs of Topeka, sub-contractor for excavation and stonework upon Domestic Science Hall, is on the ground ready for business.

Mr. Grammer of Junction City stopped over Saturday while on his way home from Kansas City to see the College and visit with Mr. Pottorf of the Second-year Class.

"The Helpful Hen" is the title given a collection of interesting papers and statistics in the quarterly report of the Kansas State Board of Agriculture by Secretary Coburn. The farmer who reads it, and, having read it, fails to profit by it, is beyond help.

The Cadets and the Cadet Band participated in the exercises of Memorial Day to their great credit. Nearly all the Cadets and all the Band turned out to assist, the boys in some instances denying themselves the opportunity to earn much-needed money.

Dr. A. E. True, director of Office of Experiment Stations, Department of Agriculture, Washington, D. C., visited the station here last week, spending a greater part of two days in inspecting the work in progress and consulting as to the probabilities of the future. The reorganization to follow July 1st changes most of the station force, and therefore leaves future plans uncertain.

The vocal music of Decoration Day, at the Cemetery, "Nearer, My God, to Thee," and "America," was accompanied by the College Cadet Band; that at the Opera House was furnished by an octette of mixed voices; of Memorial Day at the M. E. Church, by a double octette, the whole under the direction of Prof. Brown. The words of one of the selections sung, "Sleep on, Defender of a Nation's Fame," was written by H. W. Jones of the Class of '88.

The Cooking Class enjoyed a delightful trip to Pfiel Creek on Saturday. The party of sixty-five rode in two hay-racks, and several assistant entertainers went in buggies. The young folks roamed the woods, waded the stream, shouted, sung, and in various other ways abandoned dignity for the time being in the pursuit of the pleasure of an outing. Fires were built over which to heat water for cocoa, to wash down the toothsome lunch provided by Mrs. Kedzie.

Mrs. Kedzie's lecture on "Foreign Cathedrals," given at the Presbyterian church last Sunday, altogether fulfilled the expectations of the audience who had looked for something good, with Mrs. Kedzie as spokeswoman. It was entertaining, instructive, and higher than either, throughout it, ran the moral of higher aims, more steadfast endeavor, and a truer, better life. The story of a delightful trip was delightfully imparted by a woman whose keen observation permits her to see much that the casual sight-seer would pass unnoticed. Chester, Westminster, St. Giles Church, Cologne, and Calvin's Church were the ones especially noted and described.—*Nationalist*.

An interesting experiment with X-rays was made in the Physics office Thursday afternoon. About nine o'clock in the morning, Mr. Jerome Stuart, a student of the early 80's, living about two miles out of town, accidentally shot himself in the right knee with a thirty-two calibre revolver. Dr. Ross was called, and after some probing, failing to find the ball, advised that a shadowgraph be taken. Two views were taken. The one from the side, a seven minutes exposure, showed the ball directly under the patella lodged in the end of the femur; the other, a front view of eighteen minutes exposure, showed the ball nearly centrally under the patella. The photographic plates used were Seed's 26 X, requiring about twice the time of the Carbutt's X-ray plates. The ball was easily removed.

GRADUATES AND FORMER STUDENTS.

Sadie Stingley, '95, visited chapel Saturday.

Gertrude Havens, '96, visited her Alma Mater Saturday.

John Frost, '92, and wife were visiting about College Saturday.

Louise Spohr, Third-year in 1895-6, attended Chapel exercises Saturday afternoon.

Mrs. Fanny Waugh-Davis, '91, of Austin, Minn., expects to be here during Commencement.

H. W. Jones, '88, Principal of the Alma Schools, is the first of the Commencement host to arrive.

H. G. Pope, '94, is a member of the graduating class, School of Law, at the State University.

John Stingley, '94, is up from Kansas City for a short visit with the home folks. He is in the undertaking business.

The Minneapolis High School, of which Geo. W. Smith, '93, is principal, closed with commencement exercises on May 28th.

Minnie Pincomb, '96, is here ten days in advance of Commencement to visit with friends. Her brother Charles, '96, is expected in a few days.

Ada Rice, '95, post-graduate student, attended the Epworth League convention at Randolph, last week, as a delegate from the Manhattan Chapter.

Mabel Selby, '95, and Jennie Selby, student in 1893-4, after a visit of a week at home, go to Kansas City to spend the summer with their sister.

Anna Seeland, student in 1894-5, died at her home in Manhattan, May 23rd, of pneumonia. The funeral was attended by a considerable number of students.

Prof. F. A. Waugh, '91, occupying the chair of horticulture in the University of Vermont, writes of "Some Phases of Weed Evolution," in a recent number of *Science*.

Margaretha E. C. Horn, '93, who is Instructor in Botany and Zoology at one of the High Schools of Detroit, Mich., is to spend her vacation at her old home, Westbergen, Germany, sailing from New York, June 23rd, on the Steamer Furst Bismarck.

Bertha H. Bacheller, '89, for several years teacher in the Junction City schools, has been employed for the next year to teach domestic economy in one of the Kansas City high schools. Miss Bacheller is the tenth teacher of domestic economy placed by Mrs. Kedzie and Mrs. Winchip.

The INDUSTRIALIST announced two weeks ago the resignation of K. C. Davis, '91, from the principalship of the Austin (Minn.) State High School. The writer of the item was misinformed. Prof. Davis writes under date of May 22nd, and we give his letter place with pleasure: "In this country, it is not very complimentary to have to quit teaching because of a cut in salary. As to the real facts: I have been in my present position five years, and have had my salary raised three times during the five years. I am now re-elected for the sixth year by unanimous vote of the Board, and will receive my maximum salary. I have accepted this unanimous re-election, and shall remain here."

The Fourth-Year Excursion.

When we received the invitation from Mrs. Kedzie and Mrs. Winchip to spend the evening of May 28th at the house of Professor Mason, we knew that it meant to us one of the most pleasant events of our last year as college students. Nor were we disappointed. The evening was perfect. The stars shone from a cloudless sky, and the air was just cool enough to be refreshing. We were told that the evening's entertainment would be a trip around the world, and each was asked to come around to represent some trade.

Entering the house, we found the hall and room to the right fitted up as a depot—ticket office, baggage room, lunch counter, etc., while the double room to the left served admirably as a vestibule train. The bell rang. We hastily boarded the train. Every thing was typical of an excursion. The portly porter seemed very efficient, especially when he ejected one poor, unsuspecting son of toil from the train just because he didn't know he had to have a ticket. News agents, fruit agents, book agents, green-goods men, fruit-tree agents, were all busy palming off their wares upon the unsuspecting and over-credulous public. We were entertained by a charming representative of an agency for cut flowers, making her calling known to us by a square of blooming wall-paper cut in several places. The hardware dealer acted her part by carrying around a basket of old shoes, showing very hard wear. Of course we had a "Quack M. D." along. What would an excursion be without one?

In the midst of our merriment the aforesaid porter announced in an awe-inspiring voice "twenty minutes for refreshments at the lunch counter." We found this offer far more tempting than those of the fruit tree agent, so we proceeded with the rest to partake of the ice cream and cake provided especially for the excursionists. This rather ruined the trade of the nut vender, but he nevertheless proclaimed the virtues of his oranges, etc., in most earnest tones.

In the midst of all this what should happen but a regular hold up? A representative of the Dalton gang boarded the train and relieved us of our valuables, nearly scaring us to death with his ugly mask and double-barrelled shot gun.

Nearing the end of our railroad journey, the train was boarded by agents for the various steamship lines. We patronized the one who made her busi-

ness known by earnestly proclaiming the virtues of a patent bread steamer.

Time will not permit us to speak of our journey across the water, nor of the visits to the points of interest mentioned in the form of —? upon our tickets. Owing to the recitations of the following day, we called our excursion to an end at 10:30, and bidding our hostesses goodnight and thanking them for the evening's entertainment, we departed, feeling that our greatest expectations had been fulfilled.

SOME OF THEM.

Farm Notes.

The new fungicide, Ceres Pulver, for destroying smut in oats and wheat, is being given a trial this spring. The fungicide consists of potassium sulphide mixed with small quantities of other ingredients, and is sold in the form of a coarse powder. For application it is dissolved in cool water, $\frac{3}{4}$ ounces of the powder to 10 quarts of water. This amount is sufficient for treating 100 pounds of grain. The treatment of the seed grain consists in sprinkling the liquid over the grain with a common water sprinkler, while at the same time the grain is shoveled over rapidly. A floor fairly water-tight should be used for this operation so as not to waste the liquid. After treatment, the grain is kept not less than three days, and should be stirred once or twice a day, and then the grain is ready for seeding. Jensen, the originator of the hot-water treatment for destroying smut, devised this method also. As it is somewhat simpler, it is thought that it may come into more general use than the hot-water treatment has. The College farm has found the hot-water treatment very efficient, inexpensive, and simple to manage, and we have practically cleaned our oats and wheat from smut with its use. Other oat-fields that have come under my observation contain from five per cent to ten per cent of smut, but still I know of none of the owners using any remedy to destroy the smut.

Our wheat experiments have been somewhat reduced in number, as some were so badly winter-killed as to render them valueless, so were plowed up, and those allowed to remain have a very ragged appearance and have made little recovery from the winter damage. The kinds that passed through the winter unhurt are making a fine showing, and are now in full bloom and give every prospect of a fine crop, except the chinch bugs are very numerous.

Quite extensive experiments are under way where Campbell's sub-surface packer has been used in preparing ground for oats and corn. One of Mr. Campbell's famous and well-known implements was purchased this spring for the purpose. The implement consists of a system of wheels with narrow, wedge-shaped rims that run about five inches apart, and in operation cuts through the surface soil and packs or firms the sub-surface and fills up the cavities, but still leaves the surface loose. It is pulled by four horses, as it must be weighted to weigh at least a ton to have much effect. For oats, it was used on fall and spring plowed ground. On each of these plats, "not packed," "single packed," "double packed," and "triple packed" are in comparison. For corn, it was used on subsoiled and surface-plowed ground. One series of plats is situated on old ground. The plats alternate subsoiled and plowed, and a portion of each prepared with the packer. Another series of plats, and the most extensive, is situated in a field that has been in tame grasses since 1890, and plowed up this spring. Large plats were laid out and every other one subsoiled, while the others were surface-plowed. After the sod had been thoroughly disced and harrowed, all the plats were divided into two equal parts, making twelve plats subsoiled and twelve surface-plowed. Two of each of these were given the following treatment: "Not packed," "single packed," "double packed," and "triple packed." The rough, open condition of the land gives a good opportunity for a test of the sub-surface packer.

Haying was commenced last week by making the first cutting of alfalfa, and the mixed grasses were cut the latter part of the week. The alfalfa is a very fair crop, but dry weather has caused quite a dropping of the leaves and a scant blooming. The grasses have not as rank a growth as last year, but with something near twenty-five acres to cut, the barn loft will not hold the summer crop.

Something over fifty head of spring pigs makes quite a swine herd. The bunch is composed of Polands and Berkshires, and contains many promising individuals.

The results of the last winter's steer-feeding experiment that closed a few weeks ago are in the press, and will be out in bulletins in a few days. Everyone who is interested in the comparison of cane and Kafir corn should secure a copy.

F. C. BURTIS.

Mr. Griffin's Memory Slips.

The following letter explains itself:—

Topeka, Kans., 5-22-'97.
Independent Office.

Editor of the Industrialist:—

Dear Sir—You will greatly obliged me if you will say in your next issue that in my last article on the Agricultural College, the omission of Mr. Limbocker's name from the list of Regents for whose devotion to the best interests of the College I was ready to vouch, was wholly unintentional. It was simply a slip of the memory. I am sure Mr. Limbocker will be no less faithfully devoted than the others named.

Respy, ALBERT GRIFFIN.

The University Ball Club was in town this (Monday) afternoon. See last week's INDUSTRIALIST.

Junior Class Orations - - - - - Eighth Division

MAY 29, 1897

College Band—Red, White, and Blue.

ADELAIDE WILDER - Success
JEANETTE PERRY - A Few Stray Thoughts
CHARLES WHITE - The Latter-Day Prophet
BESSIE LOCKE - Shoes
TACY STOKES - Rivers

Octette—The Soldier's Chorus

JOSEPHINE WILDER John Greenleaf Whittier
FRED ZIMMERMAN - Ahead of Time
GRACE STOKES - Emotion
HENRY THOMAS What's the Matter with Kansas

College Band—Yankee Doodle

MINNIE COPELAND - Door Knobs
KATE ZIMMERMAN - A Summary
ABNER WHIPPLE - Retrospection, Prospection,
Circumspection

Ne Plus Ultra.

COLLEGE ORGANIZATIONS.

Student Editors.—Philip Fox, Gertrude Lyman, R. J. Peck.

T. M. C. A.—President, G. D. Hulett, '98; Vice-President, E. O. Farrar; Recording Secretary, C. R. Nelson, 1900; Corresponding Secretary, J. M. Pierce, '98; Treasurer, C. H. Lehmkuhl, '99.

T. W. C. A.—President, Nora Reed; Vice-President, Ella Weeks; Recording Secretary, Louise Maelzer; Corresponding Secretary, Maggie Minis; Treasurer, Myrtle Harner.

Alpha Beta Society—President, Grace Dille; Vice-President, Guy Hulett; Recording Secretary, H. A. Martin; Corresponding Secretary, Inez Manchester; Treasurer, Nora Reed; Critic, R. W. Clothier; Marshal, Laura Pritchard. Meets every Saturday afternoon in South Society Hall.

Ionian Society—President, Margaret Correll; Vice-President, Ary Johnson; Recording Secretary, Phoebe Smith; Corresponding Secretary, Grace Stokes; Treasurer, Hilda Olson; Critic, Gertrude Lyman; Marshal, Maude Currie. Meets every Saturday afternoon in North Society Hall.

Webster Society—President, Mark Wheeler; Vice-President, T. W. Allison; Recording Secretary, J. W. Bower; Corresponding Secretary, C. B. White; Treasurer, H. P. Neilson; Critic, W. T. Pope; Marshal, T. C. Melbert; Board of Directors, Schuyler Nichols, J. A. Conover, George Martinson, L. E. Potter, H. R. Webster. Meets every Saturday evening in South Society Hall.

Hamilton Society—President, O. E. Noble; Vice-President, G. F. Farley; Recording Secretary, O. R. Smith; Corresponding Secretary, W. M. Poole; Treasurer, A. J. Leonard; Critic, C. B. Ingman; Marshal, Wm. Anderson; Board of Directors, V. Maelzer, M. C. Adams, L. A. Fitz, H. W. Rogler, M. W. Sanderson. Meets Saturday evening in North Society Hall.

May 29th.

The Webster Society met in the last regular session of the school year. Mr. Dolby offered prayer. The Society voted to take up the order of unfinished business. The committee on lecture course for next year was instructed to send one of its members to a meeting of the State Lecture League at Ottawa. The trial of two members occupied a large part of the evening, and was the occasion of a sharp parliamentary contest. The lecture committee was empowered to transact all business connected with the coming lecture. The business docket being cleared, Mr. Dolby was requested to recite a poem which he had prepared for the occasion. Mr. Frost, an ex-Webster, was asked to speak and responded. Each member of the graduating class was asked to speak a parting word to the Society. All present responded and many tributes were paid to the Society of their choice. The following are some of the sentiments expressed: "The manly, upright character of its members led me to join this Society." "My happiest hours have been spent in Society." "The Society has been my home." "I have spent many a pleasant night here." "I am glad I joined this Society, and hope it will continue the best in College." "The kid of the class when I began, this Society has contributed largely to my rapid growth." "Webster Society has played an important part in my education." "This Society has been the means of making me many friends." This last meeting of the Society was an intensely interesting one, though the regular program was passed. Adjournment 10:45. C. B. W.

May 29th.

If the former Ionian presidents wanted to see the wildest enthusiasm and delight that the present Ionians are capable of expressing, they should have met with us Saturday afternoon when the new Society curtains were discovered. At first the girls could scarcely believe their eyes when they beheld the great transformation. A little note on the President's desk asked the Ionian and Hamilton Societies to accept the new curtains from the former presidents of the Ionian Society. To say, "we thank you" to our elder sisters expresses but slightly our gratification for this graceful and welcome gift.

The Society opened as usual, but as the attendance was small our program was necessarily short. Miss Alice Ross spoke very entertainingly of times in the district school and Miss Mary Minis read an excellent edition of the Oracle. The pleasing feature of the program was the piano duet by Misses Alice and Lora Perry. Miss Alice responded to the encore. The second chapter of the continued story was read by Miss Wilhelmina Spohr, and after our usual business session, Society adjourned.

G. S.

A Word to the Farm Boy.

You are growing restless on the farm. The editor of this paper knows just how you feel, for he has traveled after the plow many a weary day thinking the thoughts that you are thinking now. You don't see much in life given to raising 10-cent corn or 12-cent oats. You know there is a great outside world which you long to enter and which can only be entered satisfactorily through the portal of an education. You believe that an education would be worth to you more than your father's farm, and would give that farm, if you had it, for that education. We sympathize with you, for that was our dream for long years by day and by night. We approve of the feeling which inspires it. We would like to see every bright boy who reads this paper have an education, but would not like, unless you are particularly qualified for it, to see you secure an education that would land you in one of what are called the professions.

The country is full of lawyers, the majority of them briefless and obliged to get a living in real estate, insurance, or some other business quite apart from law. They have been driven out practically from the profession for which they spent thousands of dollars and years of time to acquire fitness. The same may be said of doctors and preachers. If you are qualified for it by nature and grace, there is no profession more honorable, nor in fact so honorable, as that of the minister of the gospel, but unfortunately many a man who has had in him the making of a good farmer has been spoiled by becoming a poor preacher.

We know of but one branch of education that has a certain, definite job waiting for the graduate when he gets his diploma, and that is an agricultural education. Every other profession is not equal to the demand, and will not be in the next twenty years. The farm boy, who, having learned the practical part of farming, having familiarized himself with the machinery and become qualified to handle farm animals as they are handled on the father's farm, will take a thorough course at the Agricultural College will be just the kind of a man, provided always he has the brains and the grit, that the world is looking for today. You may devote yourself to horticulture, to stock-breeding, to dairying, to butter-making, to cheese-making, or to cattle feeding, and if you have the stuff in you, you will find a job, and a good paying one, waiting for you at the end of your course.

The colleges and experiment stations will require the services of a great many educated farmers. It will not be many years until every line of railroad in the West will have an industrial department which no one can run who does not combine the theoretical with the practical. A railroad official told us the other day that they needed a man of this kind, and when we pointed out the kind of man required, he said: "Why, that man would cost \$5,000 a year." The Department of Agriculture needs more than anything else this kind of men, and boys without capital who will qualify themselves for this kind of work will not need to wait ten or twelve years before they see a living clearly ahead of them.

As the years go on, it will become more apparent that the man who will farm successfully must have the "know-how," which he can gain only by long experience and reading at home, or by an education plus experience and reading. Four years at college, or even two years, will be worth to you twenty years of farm life without it. Therefore, we say to the young man, not "Go West," but, go to college if you possibly can. Go to an agricultural college.

Don't start out to be a pure scientist; you want a broader education than that. It will pay you if you go back to run your father's farm; it will pay you if you buy a farm of your own. If you are not able to do this, somebody who has a farm will need you. The oil meal folks were not long since looking for a young man to act as their agent who knew how to feed cattle and how to compound rations of which oil meal is a part. Every line of business that has to do with farmers greatly prefers a man who not only knows how farming is done but can tell why it is done, and hence is in touch with the farmer.

Don't go West, young man; don't go to the city; go to the agricultural college, and go to the agricultural end of that college. This would be our advice to you if we never wrote another line. It would have been worth fifteen years of life to the editor of this paper if he had had the opportunity at your age to follow the line which he maps out for you.—Wallace's Farmer.

Hope on, Hope Ever.

Of all causes contributing to the failure of most undertakings, none is of more frequent occurrence or more potent than discouragement. Without hope, little is done; it is the hearty service that accomplishes its purpose. This is especially true of agriculture. Faith and hope on the farmer's part are essential as fertility on the soil's part; cheer to help a farmer's heart is as necessary as sunshine and rain to the growing plant. Nor is this the far-fetched fancy of the sentimentalist. It is a fact which we see demonstrated every day. When the farmer loses hope, the sheriff with his writ is close at hand.

The reason is not far to seek. The farmer deals directly with life, animal and vegetable, the growth and development of which depend upon the care he gives it, "the infinite pains" he takes with it and its environment. That the half-hearted farmer can give his care, and take these pains equally as well as his whole-hearted brother, no one will contend. Without the enthusiasm born of faith, good farming is impossible, and the highest duty and privilege of the leaders among farmers is the sustaining of this enthusiasm.

It is true that agriculture, along with other occupations in which mankind engages, has not yet reached a state of perfection; it may also be true that in some or many instances, agriculture labors under disadvantages, and is compelled to bear

burdens that should justly fall upon other callings; but farmers have not reached the state of desperation. The evils from which we suffer are not beyond a speedy remedy; but to remedy them, wisdom and moderation must be employed, and despairing men are never wise in council nor moderate in action. It is only the man who can see the mountain top above the mists who can safely be trusted to guide us thither. Let us not make the mistake of following men who can see only gloom and darkness.—Farm News.

The Beauty of the Trees.

The landscape of northwestern Iowa and Nebraska and South Dakota has been wonderfully changed, as the early settlers will bear us out, by the planting of trees. It used to be that as far as the eye could see was one monotonous roll of prairie, and now as far as the eye can see, the landscape is dotted by groves, in the midst of which are villages and the homes of farmers. The trees are great contributors to the comfort of man and beast. They shelter from the heat of summer and from the storms of winter—and the old settlers recognize the change as the later comers cannot.

The influence of trees is important. They are beautiful, especially so in such a year as this, and they stimulate love of the beautiful; and so to match the trees we have the well-kept lawns, the fringes of flowers, the climbing vines, the beautiful homes. Nature is kind to us all—kind to the poor. What the rich do in conjunction with nature they cannot hide away for their exclusive enjoyment. It is something in which we all have a sort of co-partnership. The lightest taxes we know of are those assessed by nature. It makes itself beautiful if left alone, out on the sweeps of prairie, which it sprinkles with wild flowers, and along the tangled banks of the water courses, where trees and vines and wild fruits are grown without the intervention of men's help.

In such a place as Sioux City, where the homes of the people are not crowded, the family having little but the patch of ground with a roof can make the place lovely with a creeping vine, flowers here and there, and a tree or two which will rise as grandly and spread its sheltering arms as far on ground belonging to the humble or the poor as on ground belonging to the proud and the rich.

The smaller towns and the country have compensation that crowded cities cannot know. It is a wonderfully good thing to own home, and, owning it, to have pride in it, and to make manifest your love of it by making it beautiful.

There are many ways of rendering public service, which in the main, is closely identified with service of ourselves, but there is no way that is better, so universally within the reach of people of whom we are speaking, as this way of trees and grass and vines and flowers at home.—Sioux City Journal.

Wide Tire Legislation.

The extent to which the value of wide tires has come to be recognized is shown by the fact that during the last twelve months the Legislature of nearly every State has been asked to pass a bill providing for their compulsory adoption. The State of New Jersey has already adopted a law of this kind, and it is reaping the benefit in the country. With wide tires in use, even the present country roads will improve; for such tires serve as rollers to make the road-bed compact instead of cutting deep ruts as do heavily loaded wagons on narrow tires.

College Business.

Loans upon school-district bonds are to be obtained from the Loan Commissioner.

Bills against the College should be presented monthly, and, when audited, are paid at the office of the Treasurer in Manhattan.

All payments of principal and interest on account of bonds or land contracts must be made to the State Treasurer, at Topeka.

The INDUSTRIALIST may be addressed through Pres. Geo. T. Fairchild, Managing Editor. Subscriptions are received by Supt. J. S. C. Thompson.

Donations to the Library or Museums should be sent to the Librarian, or to Prof. Popenoe, Chairman of Committee on Museums.

Questions, scientific or practical, concerning the different departments of study and work, may be addressed to the several Professors and Superintendents.

General information concerning the College and its work,—studies, examinations, grades, boarding-places, etc.,—may be obtained at the office of the President, or by addressing the Secretary.

The Experiment Station should be addressed through the Secretary.

MANHATTAN ADVERTISEMENTS.

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The exercises of Commencement week are fully reported in this number of the INDUSTRIALIST, of which there are two parts—the second being devoted to Alumni affairs.

The Baccalaureate Sermon.

The chapel was crowded on Sunday afternoon when President Fairchild preached the baccalaureate sermon, from the text found in Genesis, XXV:34—"So Esau despised his birthright."

The established custom of centuries has given to the Sunday before graduation peculiar importance in the interest of the graduates. The cherished recollections of the past years crowd into this last word of advice all the interest of an indefinite parting with the solemnity of a sermon on destiny. The goal of life is as naturally sought now as the goal of the course has been in the swift passing years. I could not, if I would, make anything less seem appropriate now, than an earnest personal appeal to the highest motives. In accord with this spirit and custom, I have chosen a text, suggestive rather than demonstrative, from Genesis XXV: 34: "So Esau despised his birthright."

The story of Esau and Jacob, twin sons of Isaac, and grandsons of Abraham, the faithful, is familiar in all Christian homes. As children, you have learned how Esau, the recognized elder and heir to the family authority, was a hunter, bringing the venison that his father loved, while Jacob tended the flocks and tilled the garden spot as the favorite of

his mother. Both were approaching their majority, and feeling the natural self-assertion and independence of youth with its touch of recklessness. One day, Esau, returning exhausted and despondent from an unsuccessful hunt, finds Jacob enjoying the flavor of a steaming "mess of pottage," ready to serve. The savor of this meal appealed most intensely to the hunter's appetite, and he begged his brother to feed him. Jacob, well-named the supplanter, found his opportunity in a brother's distress, and drove a sharp bargain to his own advancement, to his brother's detriment, saying, "Sell me now thy birthright." The birthright in that little family of two was chiefly a promise of future enlargement and usefulness, summed up in the words, "In thy seed shall all the nations of the earth be blessed." To the first-born belonged, by custom and expectation, the right to lead the coming hosts of posterity into the land of promise; into the position of power; into the fulfillment of blessedness to the race; up to the accomplishment of God's plans in the universe. By right of his birth, Esau should stand first in his generation of all the benefactors of the race. This was the ideal before the family.

But Esau was hungry, faint, despondent, saying, "I am likely to die, and what profit shall the birthright do to me?" With an oath of confirmation, he took the savory pottage and was satisfied in his bargain. "So Esau despised his birthright," counting it less than a meal of victuals.

The consequences of Esau's despite were immense

in mere outward concern. His dishonest brother again found a way to supplant him in his right to a father's blessing. Some hundreds of years later his family became the accursed nation of Edon, hemmed in, blighted, destroyed. But the genuine evil was within the character of Esau. He had chosen ill, he had lost heart; he followed the evil choice; he found no place for repentance, though he sought it from others with tears. Murder entered his purposes, and he watched for the life of his brother. Lust betrayed him into associations of idolatry and brutality. He died as the fool dieth, and his posterity followed him into oblivion.

The story pictures the facts for all time, and gives a true philosophy for all ages. Each age may have its peculiar "mess of pottage;" but the savory lentils no more surely tempted the appetite of Esau to despise the greater opportunities of his life, than other appeals to appetites, to intellectual pride, to mere emotions, have turned men in later generations from the true ideal of life. The same greed for indulgence holds the almighty dollar today between our race and its birthright as the child of the Almighty.

What is the birthright of a human being? Chief of all created things, even in his own estimate; the crown of every scheme of evolution and every plan of classification, man alone inherits the ability to find a meaning in the universe; to measure the trend of nature's forces; to look backward to a first cause and to look forward to a final cause; in short, to find himself intellectually, emotionally, socially, and

morally a child of the eternal God. Do not interpret these last words into the flippant expression by which men sometimes distinguish their willing followers in some mere statement of dogma. A child of God is every human soul that God has made in his image. Yesterday, today, and forever the birthright of children is ours to accept or despise.

A brief comparison may help us to reach a true estimate of this birthright. Men, brutes, vegetables, and all material things exist alike. They can all be weighed under the same law of gravitation, or tested for similar chemical affinities. Men, brutes, and vegetables live. By scalpel and microscope they can be analyzed into similar elements of life. The cells of protoplasm grow, divide, and multiply in all by the same laws. Men and brutes feel, have sensation; in many instances the same senses link both brutes and us to the same environment, lead to the same associations and discriminations, and result in identical instincts and habits. We find ourselves akin to the brutes in most of the mere perceptions of realities about us and them. We even share with them the memories of the past, and we cannot deny to them anticipations by imagination of future gratification in a sumptuous meal or an exciting chase. Most of the emotions of association with wants, with home, with kindred, are as keen in their lives as in ours. Pains and pleasures are as real to them as to us. In all these varied activities, experience becomes their teacher, as it is ours; they learn the lessons of their life as we learn ours. Within these limits a man and his horse may recognize the same world; a lady and her poodle may have the same tastes.

Beyond this, a man may think, idealize, wonder, and love, as brutes cannot. From this lower world of sensuous feeling, man may find his way through rational conceptions of relations, rational admiration of cause and effect, rational appreciation of welfare, and rational self-control, to a whole universe in which his father dwells supreme. To him, God can teach the eternal truths of matter, mind, and soul. To grasp these truths and find his life in them, is his peculiar birthright. He only, of all the visible creation, can think the thoughts of God; can find the soul of the universe; can have eternal growth and life. All things may exist perpetually; he lives, if he will, with God.

A man's first full recognition of this higher life is in idealization of truth. Truth and falsehood in character, truth and error in thought, stand in the same strong contrast. To be a whole man, one must find place for devotion to truth. I cannot fully comprehend the claim of those who advocate the seeking of "truth for truth's sake," since truth is but a quality of thought whose use is found only in the thinking being. But every thought worth thinking is true, and every truth is worth thinking in its proper time and place. Less or more than the truth no genuine thinker can want. Truth makes men masters of nature and of self. Truth opens the gates of knowledge and of life. Truth stands sentinel before the throne of the universe.

We know the way toward truth in open-hearted search; but we feel the dangers from the ignorance, the habits, the passions, of our lower nature. We pray for the spirit of truth to make us free indeed. The prayer is half its own fulfillment, for devotion to truth brings the only intellectual freedom. Devotion to a supposed truth,—perhaps a half truth,—makes a disputations fanatic or an overbearing tyrant, according as one lacks or gains power over others. Devotion to truth in all its phases makes a teachable, earnest soul,—brave before error, but not arrogant,—fearing no ill consequences of research, but dreading the trammels of mere prestige or prejudice. The danger to truth he meets with more truth, not with concealment. "Truth crushed to earth will rise again," he shouts, "the eternal years of God are hers," and he never expects that any little makeshifts of shielding constraints are needed to protect her. Truth alone is his means of growth and of conquest.

Does he not accept truth from authority? Yes, always, till authority can be tested by a clearer authority; but the place for honest doubt is always on the road to truth. The most perfect faith in a perfect authority leaves opportunity for doubt of our own perfect comprehension. Faith often leads us to accept more than we can understand, but only because we understand the ground of our faith. Belief without reason for belief is not a characteristic of truth-seekers, but of time-servers.

The second element of human birthright is rational perception of welfare as the characteristic good of all beings that can feel a pain or experience a joy. Truth finds the relations of cause and effect surrounding this welfare, and measures the importance of any good or ill in the scale of happiness for all beings;

but devotion to the universal end of welfare is seen by rational man to be the chief attribute of God, and so of his children. Without such choice of universal good, whenever and wherever seen, a man knows himself to depart from right, and to fall short of even his own self-respect. His birthright includes the noble satisfaction of meaning to do right by every living thing, and weighing its welfare with his own. So he loves his neighbor as himself; so he loves the sensitive nature about him in all things, great and small; so he loves God as author, preserver, and protector of good in all the universe. Such universal love is but the natural outflow of a rational soul; anything else is irrational and beneath the ideal of one who claims the full measure of his birthright.

To such a soul, the world has a meaning far greater and more lasting than any mere test by senses, appetites, or desires purely personal can teach. Personal sensibilities become multiplied in usefulness to him by teaching him how the world affects his neighbors; and as one soul halves pain and doubles joy by intimate association with a kindred soul, so the full developed man, kindred to the universe of sentient existence, divides his peculiar ills and multiplies joys by sharing with all nature and in all nature. If God has made you and me able to touch our fellow beings with quick appreciation of their powers, their needs, their duties, and their rights, just so far their good and ill become a part of our own, and we have heirship in their destiny. Not only that, but in some measure we become an element of that destiny. God, the creator and promotor of welfare, takes us into a perpetual partnership for his work. The enlargement of life, the glorious growth of this free choice of usefulness, outweigh all considerations of self alone. The range of pleasures, instead of being limited to meeting present bodily appetites, becomes universal and lasting—as wide as the pleasures of sentient being of all kinds can reach, and as perpetual as existence.

Further, this birthright opens into the everlasting life of God—the unlimited, eternal energy of life. If you and I can find our place in nature as true interpreters of all that comes to be, and can enjoy such knowledge, we are ready to enjoy perpetual life, perpetual growth. But if our lives are hemmed in by the petty interests of daily food, and other mere passions, endless existence means but humdrum at best, and means the endless degradation of deterioration to one who might take the higher course. The choice of selfish pleasures in spite of the call from our higher intelligence brings loss of self-respect, loss of a higher pleasure than we have gained, and so degrades us in the estimate of every thinking being. We have sold our birthright for pottage.

Among the thousand ways in which we are tempted to despise our birthright, I can name but a few of the most evident. Each generation of men has its peculiar temptations, and their variation is endless. But to give only a general warning, as you look at the world before you, would be to leave you unguarded until your own experience, too late, may show the danger.

In every youth, the zest of life is fresh and grateful. The lusts of body are eager, and their satisfaction is imperative. Eating and drinking, exertion of muscles, display of appearance, and every sensuous activity are natural, and provided for in the plan of perfecting and maintaining humanity. But all these are quite as evidently the natural action of the whole animal kingdom. To brutes, these form the chief reason for living. Man becomes a deformity when he lives like a brute. In 1862, at the end of my course as you are, I sat with a friend who had just entered the army as an officer. At a suggested indulgence, which I declined with the remark that I was afraid of such a master as it might become, my friend exclaimed, "I thank God that I have passions, and I mean to make the most of them." Exactly two years later, we laid his magnificent body in his soldier's grave, sick at heart that one who might have been a hero was little greater than a brute. Had he "made the most of" anything? Passions of every kind are of use only in growth to higher things, and he who seeks his good in any mere indulgence despises his birthright. Today in our land, an army of youth on the road to excess in smoking and drinking is sacrificed at a worse bargain than Esau made for his mess of pottage.

But, you ask, are these indulgences not natural to youth? Must we not find pleasure in such channels of activity? May we not "eat honey because it is good," with no question as to the consequences? Certainly the sensuous part of life has its good to be enjoyed; but always in relation to its consequences. Esau's

hunger ought to have been gratified wisely and well, with a manly regard to the consequences, not in brutish recklessness. You and I get the most good of our animal passions when we remember our human nature in self control. The happy manhood and womanhood, the happy old age, the happy posterity of mankind, depend upon the temperate activity of youth, in all its sensuous life. Sell no birthright for the pottage of vicious indulgence, even in sports. Pursued for its own sake beyond the line of strict manliness, even play becomes death instead of recreation. Is there not danger that college athletics, good in their place, shall cost some students their birthright?

But these temptations to immediate bargains pursue us through life. The ambitious young man is met by the praises of the multitude. They seem sweet,—as they are, when they second the approval of his own soul in manly deeds. But are such plaudits worth anything in their own qualities? Can they compensate for any despise toward our own birthright in manliness? Note and notoriety have this difference, that note comes to a man in the line of duty; notoriety is gained by devotion to the lusts of the crowd. Which is manly? Which pays? A desire for fame, good or ill, tempts many a soul to part with his birthright to heroism. Today our college world is filled with shouts of praise for the victor in every kind of conquest. Instead of "thoughts that breathe and words that burn," the phrases that win and the tricks of performance are brought to the front. All interest centers in the winner of a prize. But what is the prize, or what is the praise, but pottage? The accident of winning subverts the life of oratory in the soul of hundreds of students to the perpetual detriment of our race. Training for show can never conquer the hearts of men, or furnish the truth on which true manhood feeds. College students are taking the pottage, when they exalt these trifling methods above the genuine growth of mind and character.

The business world into which you look just now with interest offers its mess of pottage. The great business enterprises which have changed the face of the earth in a lifetime,—filled valleys, reduced mountains, bridged oceans, and made the whole world neighbors,—tempt into worship of opportunity. To become one of these movers of the world's energies seems a worthy ambition. To marshal the armies of industry in new undertakings is to lift the whole race toward welfare. A genuine benefactor of the race is as likely to come from the ranks of industrial enterprise as from any other class of thinkers. The thrift of energetic thinking may wisely guide you into the centers of manufacture and commerce. But there, as elsewhere, temptation is rife, perhaps peculiarly so, to put immediate advantage before genuine welfare,—the pottage for the birthright. Capital is a part of the needful machinery of enterprise, but if this needful wheel becomes the end of action, as it often does in the greed for wealth, evil alone results. The youth is dazzled with his view of the power he might wield for good with a million of dollars, and at once turns his eyes to the dollars away from the good. He enters competition with his neighbors for dollars, not for the good he can do. It is the fashion of our day to decry competition as the bane of society. I think, however, a better analysis would show that where these evils dwell, honorable competition has given place to the seeking of business advantages without equivalent. A cut-throat competition has never belonged to true humanity. The truest co-operation is also the truest competition, where all the energies of men combine to give the largest welfare to all. The true law of business life is above the tricks of the trader, and any man who lets a promised advantage draw him away from the path of honor in business puts up with a pottage when he might have had his birthright fulfilled.

The peculiar temptation of riches may seem to belong to those whose gains are counted by the millions, or at least by thousands; but the pot of beans is just as often in the day's wages of the mechanic or in the nickels of the newsboy. If you find your greedy appetite for gain making you forget that even in a bargain you are your brother's keeper, you are gaining the pennies but losing the brotherly love to which you were born.

Individual men, great parties, and even nations have lost their birthright for temporary political advantage or control of others. A great moral reform is sometimes carried to destruction by eagerness for power among the leaders. Reformers of human life must be human in their mode of growth. Law reforms only as it conquers the judgment and sentiment of communities. The best laws of the deca-

logue enforced by prison walls alone merely enclose the festering mass of robbery, lust, and murder to breed a worse disaster. When our puritan ancestors in England sought by stringent laws and brute force of execution to save England, they found a worse condition to follow. From the wickedness of Charles the First, England came through the austerity of a Cromwell to the worse wickedness of Charles the Second. The Puritan power of self-control was lost in gaining mere political power over others. So every party, in power or out, which places its own supremacy before the genuine service of freedom and welfare in platform, court, or legislative halls, loses its right to be; its birthright has gone for the pottage.

The French people have several times sought enlarged freedom by combat with established customs; but greed of power in parties has crushed their hope with disaster. Force seldom settles such questions of right, for it becomes the very brutality dreaded. Force brings into leadership the least loving, least earnest, and most base and hypocritical of would-be reformers.

Such is the nature of every true reform in nation or people, that welfare must be chief in every movement. "Evil that good may follow" shatters the foundation of good, and leaves the reformer to be reformed. Yet the world has always seen that greed for political prestige and personal power is appealed to unfailingly. Arnolds and Burrs, in every onward movement, stand ready to take the pottage and despise the birthright. This single fact accounts for tardy progress toward a true society in the brotherhood of man.

But there will come to each of you abundant temptation from other sources than appetite for pleasures, fame, wealth, or power. If all these are recognized as the mere means to ends, there is still the chance to fall before pride of intellectual supremacy. The world has long suffered and still suffers for knowledge that can touch the everyday life of all the race. True welfare asks the man of education, the cultivated lady, the learned in science, the gifted in art, to lend a helping hand to the lowly ignorant. Yet in the past, and now to a great extent, the man of learning finds himself seeking an aristocracy of learning in which his gifts may be appreciated. To the "hewers of wood and the drawers of water" he has no message of love and good will, no adaptation of his thoughts to the beginning of thought among the so-called industrial classes. Truth ought to be for all who can profit by it, and the form of truth to reach all souls is greater than the so-called lofty thought which only savants can comprehend. Yet the pride of learning will offer you pottage when you are tempted to think and write for the praise of great intellects. Display of learning may win the coveted praise, but it never wins souls. Learned aristocrats, like aristocrats of wealth or of power, despise their birthright of manhood.

A more frequent temptation to the man of average abilities and healthy appetite is to take comfort in his independence. He cultivates a sentiment of comfort in the fact that his wants are few and his comforts easily supplied, so that the living the world owes him is secured with little exertion. Ease is his pottage, and he glories in the fact that the soup satisfies him. The wrongs and turmoil of human society bring no harm to him, for he is joined to his idol of ease. If he cares for any of these things, it is simply because of the noise or the danger. Against this temptation, there is no safeguard in condition. The clams of society are found in every rank of wealth or learning or birth. Nor is there any cure. The man of few wants has lost his birthright. The chief problem in raising the submerged tenth from poverty, hunger, and dirt, is to find again their birthright of rational aspiration, rational sense of respectability, and rational choice of higher things. The most intricate problem for the upper four hundred is to awaken in them a similar rational view of the grander life open to men and women of wealth, breeding, and education in the fields of philanthropic energy. Oh, that these extremes of society, lost alike in their ease-loving propensities, could find their birthright anew, and live for their fellows and for God's work in the world.

The sequel to such self immolation on the altar of ease is absolute inanity, a loss of will and of power, both physical and moral. In several generations a race of imbeciles may hold the form of men with none of their personality, none of their God-like energy. And yet, to hear the talk of our day, you might think the world's haven of rest is to be found in devotion to ease. The heaven of too many, their land of rest, is a land where wants shall cease, because, forsooth, their bodies shall be warmed and fed without their

care. Such a heaven would be suitable for swine; but where is the manhood for which God made us? The struggle for life, for knowledge, for usefulness, for gratitude, for love, for helpfulness, finds its spur in wants that make our immortality a necessary complement to our being. Ease is the devil's pottage with which he baits his trap for men of every calling to rid them of their manliness.

Enough has been said to emphasize the fact that life's problems are still unsolved to each generation. The folly of Esau is within the possibilities for every young man and woman before me. Life is so far of your making as to be within your choice of ideals that satisfy eternal principles of growth, and lead the way to everlasting happiness, or of the low gratification of mere temporary wants that bring no welfare in their train. The child's play is his means of growth, but if continued into manhood as a business, is his degradation. So all the bundle of appetites, passions, affections, and tastes enumerated in our wants contribute to the fulfillment of our destiny, but are means, not ends of our being. We must live in a larger and more lasting world of thoughtful exertion. He who would enjoy his birthright to the full must find his joy in duty met, known, and done.

In a deserted place in Judea, the youthful Jesus contemplated his future. He was gifted with new light and new power. The world needed a leader. His light and his power were made to fit his leadership. How should he wield his power? Where should his light shine? Could he draw all men unto him? Alone in his contemplation, when appetite appealed, for he hungered, the suggestion came that his power might satisfy hunger. The voice said, "If thou art the son of God, command that these stones become bread." Should his birthright be simply the means of feeding his body? He answered this adversary of all manhood, "Man shall not live by bread alone, but by every word that proceedeth out of the mouth of God." Food is the least element of life. But again the voice whispered to his sense of new powers feeling after the world of souls to be led, "If thou art the son of God, cast thyself down" from the pinnacle of the temple, "for it is written, he shall give his angels charge concerning thee." Should not all the world see the glory of such a display, and flock to his standard? But again he answered, "Thou shalt not tempt the Lord thy God" by any such test of care. A third time there came to his vision "all the kingdoms of the world and the glory of them," with the promise, "All these things will I give thee if thou wilt fall down and worship me." Had he not come to the conquest of the world? Were not these kingdoms worthy the sacrifice of his birthright? Could he not turn the world to his will with a scepter won by a single act of reverence to evil? No, he answered, "Thou shalt worship the Lord thy God, and him only shalt thou serve." So he conquered the evil spirit of appetite, the pride of life and the lust of power to be the Savior of the world by showing you and me and all his kind the way to find and keep our birthright as sons of God. It led him to the cross for his conquest. It brought him through sacrifice to his glory. But who would doubt the grandeur of the joy set before him when for it he "endured the cross, despising the shame?" Son of God he was, by his energy of devotion to a race whose lost manhood is found only in learning his lesson of faithfulness, earnestness, and devotion. Shall we learn the worth of this birthright today?

The birthright of a young American citizen at the close of the nineteenth century cannot be measured, and must not be despised for any trifle of personal good. Esau had but a promise, the fulfillment of which is almost within our grasp. All the nations of the earth have been blessed in the dawn of Christian life and love. To you and me comes the opportunity to bring its full brightness. In this land of liberty, every human being comes to the choice of his own duty. No soul but his own can choose for him, and none can make good his failure to choose aright. An educated young man or woman holds in the power of choice a destiny worthy its name. God put you here at this very time to fill your place in the world's work; to share in the plan of the universe. Can you trifle with duty and hold to your birthright of freedom?

Your nobility obliges, but your birthright entices. You can look backward through generation after generation in your ancestry of heroes. You can trace the growth of constitutional freedom through the steps and the men that have established it. You have the sympathy of all the world in your broad platform of welfare for humanity. In personal equipment, there are few equals and no superiors. You have power to sustain the life of every creature within reach. You have the means of quickening human intelligence in

all the corners of our land, if you and your generation will use them. You have the accumulation of wealth, skill, industry, ingenuity, and thought gathered by generations. You have the conditions for peace with all the world in a glorious competition for universal helpfulness. You have, above all, the instincts of individual liberty and enjoyment in human advancement. You can see, if you will, as none before you could see, the full measure of God's plan for putting men in families, in communities, in nations, and in a nation of nations. You can control, as the world never could before, the agencies of life and death, of elevation and degradation. You have a birthright of love.

Can anyone despise this birthright for anything merely sensuous, for anything as empty as praise, as fleeting as wealth, as treacherous as power? May God help you, his children; make you worthy to be the brothers and sisters of the Christ, and joint heirs with him of the full glory of true manhood and womanhood.

Class Day Exercises.

The evening of Wednesday found the chapel crowded with about 800 guests, friends of the Class, who came to share with them the pleasure of this last meeting. The program as printed below was carried out to the letter, and the salutatory, class poem, and valedictory, printed in full, stand for the excellence of the other numbers.

THE PROGRAM.

Music	College Orchestra.
Invocation	President Fairchild.
Salutatory	Emma Finley, Class President.
Sextette	"Pilgrim's Chorus" from "Tannhäuser," (Wagner.)
	Wilhelmina Spohr, Marie Haulenbeck, Gertrude Lyman, Mary Norton, O. E. Noble, S. B. Newell.
Address	"Our Future" R. J. Peck.
Violin Solo	Phillip Fox.
(a) "Cavatina" (Raff), (b) "Schlummerlied" (Booth.)	
Class Poem	Alice Shofe.
"Evolution of the Stars,"	Edward Shellenbaum.
Vocal Solo	Marie Haulenbeck.
	Violin obligato by Phillip Fox.
Class Legacy	B. R. Hull.
Class Song	Quartette.
	Words by Mary Norton; Music by Marie Haulenbeck
	Wilhelmina Spohr, Gertrude Lyman R. W. Clothier, S. B. Newell.
Valedictory	Gertrude Lyman.
Vocal Trio	Selected.
	Marie Haulenbeck, R. W. Clothier, S. B. Newell.

THE SALUTATORY.

The Class of '97 extends to you this evening a hearty welcome to these their class day exercises. We take pleasure in entertaining you on this occasion, and we ask your hearty approval and kindest criticism of our work. Our years of toil and study within these College walls are to terminate with the exercises of this evening. Although we go tomorrow to face the wide, wide world, yet there will always linger about us tender memories of these years of preparation for life's work. But we have finished our lessons in this school of preparation, and now go to face the sterner realities of life. We realize that to gain the highest position to which we would ascend there must be a constant growth, a constant use of the powers and possibilities which are a part of every well-trained intellect.

How much we shall accomplish in life depends on our ability, our opportunity, and our application. The first two are fixed dualities. The last factor is in our control. We may determine what amount of application we shall join with our ability and our opportunity. It is by our application, therefore, that the result, so far as we have any power over it, is measured.

The power to do grows by faithful doing; and, our ability, though for the present neither less nor greater than it is, can be made for the future indefinitely broader and more effective. With persistent faith all can be done, not in a day, not in a year. The results of application are a form of growth, and like all growth they proceed slowly and unconsciously. But by faithful application, doing each day what can be done in that day; by aspiration, by patient, undiscouraged fidelity, in every least as well as every greatest thing, the sublime result will at last be realized. And though we are to pass from these walls to face, many of us, an unknown future, the training we have gained here will go with us to guide our erring footsteps.

Friends, we welcome you. To our worthy instructors, we do homage. If we can but partially show by our evening's entertainment what an influence your firm discipline and kindest instruction has had in molding our characters and lives, we shall feel amply repaid.

To the graduates we would say your lives have been to us examples of untiring energy. You have taught us to do diligently each day's work that we

might eventually reap what we had sown. If by our efforts we have inspired you who have further duties here to do your work better and accomplish more, we shall feel indeed that our efforts have been a success. The world, now, has a place for us, and the time has come to launch our bark. All that has been done for us can be repaid only by being true, earnest men and women. To our surroundings while here we owe our stores of wisdom that we have treasured up—the development of mind and heart, the rich outpouring of which we hope will bless the world. And now, as we pass away to mingle with the busy, restless throng, others will come to fill our places. But fond memories of our College days will ever linger in our hearts.

CLASS POEM.

As travellers climb the mountain bold,
And from the summit view the dale,
So we tonight would lift the veil
That hides our future, new yet old.
But failing here, we turn our eyes,
And looking down the mountain side,
We, too, discern with youth's own pride
How far away the valley lies.
Oh, peaceful vale so lately trod,
The storm clouds on thy bosom lie;
Then silver linings greet the eye,
And catch the light that comes from God.
With thee no more we make our home,
Sweet vale we leave thee now for aye;
Yet, climbing on from day to day,
Until we reach our mountain home,
We'll often turn as up we go,
And see our path a silver thread,
With clouds just breaking overhead,
As they recede more lovely grow.
Not all of thee we leave behind,
For memories dear thy breezes soft
Will waft to us, e'en far aloft,
To cheer and soothe the burdened mind.
And memories come of early days
When we were Freshmen brave and strong
And wished the time were not so long
Till we had learned the Senior's ways.
But time would fail to tell you all
That we have thought and said and done,
Of Sophomore's course we quickly run,
Of P. M. work and banquet hall.
The Junior lads so much adore,
Of Junior lads and lasses who
With trembling knees made their debut
When first they gained the chapel floor.
Remember, too, with every thought
Of College days and friendships proved,
Those friends, those teachers we have loved,
As treasures hold the precepts taught.
These chapel walls in visions rise,
And words of wisdom spoken here
Still go with us from year to year,
And draw more close the school day ties.
When we return to these old walls,
The ones who led us gone afar,
Their absence will our pleasure mar,
And rob of joy those dear old halls.
Yes, we at last as Seniors stand,
And waiting near the threshold wide,
Between our world and that outside,
We feel the pulse of this broad land
That throbs with feeling pure and strong,
And rhythmic beats—there's work to do,
Though men decide, the world needs you,
Oh come equipped, and be not long.
The world is calling; go afar
To carry joy where men repine,
And make them glad; for so should shine
The light of fifty-five bright stars.
Where e'er we see the blue of heaven,
On nation's flag or sunny skies,
In blue bells, fair or laughing eyes,
We'll think once more of ninety-seven.

THE VALEDICTORY.

Long years ago there was a song, the words of which express my sentiments tonight in speaking to you, my dear friends of the Class of '97. They are:—

Adieu, adieu, may do for the gay,
When pleasure's throng is nigh,
But give to me, when loved ones part,
That better word, "good bye."

There is a world of meaning hidden in that simple "good bye;" it is a contraction for "God be with you," and on this occasion when we are about to leave College halls and dismiss forever the busiest and happiest time of our lives, what parting word could be more fit? What better could truly express our heart-felt wishes?

Four years have we toiled together, each term bringing its pleasures and disappointments, and even though highest mountains have obstructed our ways, or waters have at times fairly washed away the solid foundation on which we stood, leaving us on that uncertain foundation of sand, still we have come out victorious; for let us look back. The trials and difficulties which towered mountain-like before us appear there in the distance as mere foot-hills; the waters are but little running brooks, quietly seeking their way in and out and around until they have carried our frail barks to the end of their course, and now we stand here on the shore ready to push off and set sail on that broad expanse—life.

Just now, undoubtedly, the way looks bright to all; but will it always be bright? With some, perhaps, but others will meet with discouragements in whatever undertaking. As you glide along in your little boat, one difficulty after another will arise; an oar is lost, and you are left to steer your way with only half the hope and the energy you had before; a leak is sprung, and instead of making that progress you so desire, you must stop and bail out the waters of misfortune, in the meantime time drifting backward. Another struggle takes you back to the first place, and you start out again. Moving quite rapidly, suddenly you look around, and you are astonished to find that everything has come to a standstill. You are stranded there on a financial sandbar, and work as you will you must wait for the flood-tide of prosperity which comes to your relief

bringing with it fresh bubbles of hope, giving you a little more courage to set sail. You are swept off in sight of the approaching storm, which comes with a wild rush, tossing your bark this way and that, and all disheartened you reach out in the vain hope of saving yourself by following some new vocation. Thus you will be drifted about all through life—seemingly little progress, no change from day to day. Nevertheless, take this for your encouragement, that often just such people, although never reaching the pinnacle of fame, prove to be the best citizens, intellectually, morally, and spiritually. To you, then, who are about to start out on this way, we would say "good bye."

The fate of others will be different. It is night. Your lamps are trimmed and bright, and you start out on life's journey over a mountain. Everything goes smoothly and life seems comparatively easy for awhile, but a strong gust of wind blows swiftly by, extinguishing your flame, leaving you in utter darkness. By borrowing a little of the oil of information, you are enabled to strike light again, and your lamp of knowledge is once more set in order; but it feebly burns and finally becomes so dim that to cheer you on your way it is valueless, and you must be led along uncertain paths in the feeble light of uncertain knowledge. Through determination and confidence, you have groped your way up the mountain, until now there is just one more step and you will glory in your success. But alas, that step—that decisive step—the one you thought would give you fortune, proved to be the opposite—misfortune. You are going down. You try to save yourself by clinging to rocks and weeds along the mountain side, but your efforts are all in vain; down, down, until you have reached the lowest limit, and there you are left alone, all wounded and bruised over the thoughts of a complete failure. No friends, no home,—but all alone,—one single prayer is uttered, and you fall asleep. Early morn finds the hunter galloping over the way, and he is attracted by something at the foot of the mountain. He immediately rides down, dismounts, and goes to the place of the peculiar object, and what should it be but a fallen brother. In sympathy, he bends over him. Called once or twice by name, the brother looks up into that kind, loving face. Words cannot express the thrill of joy he feels to think that some one has come down so low as to speak to him in this kind, friendly way and to help him up on that higher and better plane. After an encouraging talk of words of comfort and cheer, and a careful binding up of the broken wounds, the two start out on their way—the one disappearing down through the glen, the other struggling up the mountain side. Some of you will pass just such a life, and to you we most earnestly say "good bye."

The rest of you will start out in life as the others have, but going ever onward, having one grand purpose in view which may be represented by an infinite number of steps leading gradually upward and onward, but fading at last in the mist and clouds. Even though the last few steps are invisible, the whole flight is terminated by the one ideal in the form of a great, powerful light penetrating through all space and typical of highest honor, glory and fame. Along the way are numerous diverging paths leading to little stations where weak ones on life's journey are attracted and are allowed to see life in all its pomp and gayety, and are tempted perhaps never to return to the main road of success. But not so with you. You have determined to never be content with anything less than the possession of this one bright star in your crown, and instead of being attracted by these side lights where life is painted in gorgeous colors, making it appear as one of never-ending enjoyment, you will turn away from all such and live only "On, ever on to a purpose." And to you, also, we say "good bye."

The course of life with each of us will move along one of these three lines, but in spite of our aspirations and desires to follow some ideal which in our youthful experience we have mapped out, we know that "Man proposes, but God disposes." But it is not necessarily discouraging, for there may be untold light and sunshine on the way if we will only let the Sun of Righteousness shine into our souls.

So in behalf of the Class, I say to you: each that whether your path runs high or low, this expresses the real desire of the rest: "Good bye," "God be with you."

Commencement Exercises.

At ten o'clock on Thursday morning the usual number of interested friends assembled in the College chapel and on the chapel platform to witness the graduating exercises of the Class of '97.

The platform was tastily decorated—the result of the work of the class committee under the careful and untiring management of Mr. Baxter. The fifty-five silver stars in the background of blue represented the fifty-five members of the graduating class—fifty-five young men and young women who have now taken up life's work in a broader field than that in which they have spent the past four years. Upon the platform, under the gracefully hanging stars, were seated the members of the class and a number of specially invited guests. Overtures were rendered by the Cadet Band and by the College orchestra. The chorus, "Thou art our Father," sung by the College Glee Club, and the solo by Miss Mary Lyman, '94, deserve special mention. Rev. R. M. Tunnell of Manhattan offered prayer.

President Fairchild, in a few well-chosen words,

introduced the lecturer Dr. Washington Gladden, of Columbus, Ohio. For an hour and a quarter Dr. Gladden interested and instructed the audience, his subject being "The True Socialism." He emphasized the fact that, surrounded by and mingled with the follies and fancies of such men as Rousseau and Karl Marx, men whose theories are entirely impractical and whose lives are in direct antagonism to principles of morality on which true socialism must be based,—surrounded by these follies and fancies,—we may find and we must admire the true socialistic principles. Let us search among errors for the principles of truth, but let us first understand the meaning of the terms which we use. Socialism and anarchy are not the same, though the meaning of the terms has become degraded until the two are often associated. The anarchist and the socialist are together in opposing present conditions, but on the question of what shall be substituted for the existing conditions they are at antipodes. Anarchy would do away with all government, and make the individual a law unto himself. Socialism in its most radical form throws all individual responsibility upon the State. Anarchy is the principle of *laissez faire* carried to the extreme. Herbert Spencer says that the existence of government is a proof of barbarism—that government exists because crime exists, but with the impracticability of a typical anarchist, he forgets that abolishing the government could not mean the abolition of the evil. Socialism holds the view that government is not the offspring of evil, but on the other hand it is an indication of the existence of God. Comparing the two views, Dr. Gladden takes the position nearer to the views of the socialists, though as yet these schemes are too indefinite for a rational man to endorse. We ask how far shall State authority and State responsibility be carried, and in their failure to answer the question satisfactorily lies the weakness of their schemes. We admit the need of social reform when we see the injustice of existing industrial conditions. These conditions demand our attention, but this attention must be thoughtful and rational. Our deepest need is not a change of form, but a change of spirit. "In Socialism as in religion, the letter killeth but the spirit giveth life." The true socialist is not the so-called social reformer; he is rather the man who realizes only his own duty to society. Doing good is not the work of the minister alone, but in whatever calling we choose, we must apply the second great commandment, "Thou shalt love thy neighbor as thyself." The merchant who serves his customers to the best of his ability "makes of his counter an altar and of his trade a sacrament." Society owes to the one who so serves his fellow men remuneration in accordance with the diligence of his work. The lecturer has no sympathy with the old theory that man's duty first and last is to care for himself. Under this plan, the egoistic lion and the altruistic lamb have learned to lie down together (with the lamb always on the inside), but this is not therefore approaching the prophesied millennium. True socialism does not require that a man forget entirely his own interests and labor only for the general good, but it does insist that the individual must not seek his own interests at the expense of the general good. Society will always be ready to reward honest work, but it has no place for the social parasite who takes from society without giving any direct return. Honest work is a labor of love, whether a man sweeps the streets or sits to measure the laws of his country. Work is noble if it has a noble motive. No man lives to himself alone. The employer cannot say that he has no duty to his employee farther than the duty of paying for his time. Each one is his brother's keeper, and the duty is one which cannot be shirked. Cain was the first to deny this truth, and the curse of Cain must rest upon all who violate the sacred trust given them.

We are slowly moving toward the condition of society where self interests and altruism can be harmonized. "Slow and sure come up the golden years when wealth shall not be heaped for private ends, but to melt and mould itself into the happiness of the world."

The degree of B. S. was conferred on the fifty-five members of the Class of '97, and the degree of M. S. on the following six post-graduate students: Grace Clark, '92, Manhattan; D. H. Otis, '92, Manhattan; Maude Gardiner, '93, Manhattan; Ivy Harner, '93, Manhattan; Clara Castle, '94, Manhattan; T. W. Morse, '95, Mound City, Kansas. The honorary degree of A. M. was conferred on Prof. O. E. Olin, who for twelve years has done such efficient work as Professor of English Language and Literature in the College.

Military Drill.

The Military Department has done excellent work during the year. The battalion compares favorably with any student battalion in the United States. Capt. Cavanaugh has secured excellent military discipline in the four years which he has spent in the institution.

The drill on Thursday afternoon did credit to the Commandant and to the student officers in charge. A slight shower of rain interfered with the spectators watching the drill, but with true military spirit the battalion paid no attention to so trifling an obstacle, and went on.

Lieut. Harrison finds the Department in excellent condition, and we expect a continued development in the military training offered.

THE INDUSTRIALIST.

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NUMBER 39.

The Alumni.

They Give a Reception and Banquet to Retiring Members of the Faculty.

Alumni Business Meeting.

The business meeting of the Alumni on Thursday afternoon was an interesting one. The roll-call showed an attendance of almost three hundred of the graduates of the College. The usual business was attended to, and the usual resolution favoring Alumni representation on the Board of Regents was adopted. The resolutions adopted by the resident Alumni Association and published in the INDUSTRIALIST a few weeks ago, disapproving of the radical change in the policy of the College, was made the action of the Alumni Association. The Association has only the best wishes for the new administration, but, if one may judge from the action taken on Thursday afternoon, it has only condemnation for the action of the Board of Regents in making such radical changes in the Faculty. The Alumni will stand by Alma Mater, as expressed in the following resolutions:—

"Resolved, That we, the Alumni of the Kansas State Agricultural College, today assembled at our old home, express our pride at the growth and greatness of our Alma Mater. Whatever may be our fears, our hopes, our individual opinions, we are proud of its past history and its present high place in the company of like institutions. We honor and revere the names of the men who have been inseparably connected with its growth and development. The honor brought to the institution by reason of its competent President and Faculty, we feel to be an honor to us individually, for which we are profoundly grateful to our friends, the Faculty.

"Resolved, That we view the recent action of the Board of Regents in dismissing the President and members of the Faculty with regret, with sorrow, with indignation, and express for the act our unqualified condemnation. We regret that any attempt should be made from any source to belittle or to besmirch the character of the President or any member of the Faculty, and we pledge ourselves to defend their honor and good names as loyally as we would defend the honor of our own homes and families.

"Resolved, The policy of the institution, heretofore maintained, has been one that adhered strictly to the legitimate function of training its students for the shop, the farm, and the home, as well as for the advancement of science and agriculture, and carefully avoided giving any attention to political problems that lie wholly without the province of such institutions; and by the unusual proceedings of the recent Legislature and the present Board of Regents this policy has been overthrown, officers and employees of admitted efficiency have been dismissed, and a policy has been mapped out which makes party fealty the primary test for purely educational and scientific positions. We recognize in this change of policy a dangerous precedent, and pledge ourselves to labor by all honorable means for the divorce of our State institutions from political influence and control. We regret the disastrous effects that must necessarily result in the Experiment Station connected with the College from the unavoidable break in the continuity of the series of experiments now under way.

"Resolved, That we again urge with added emphasis the appointment of one or more members of the Alumni to the Board of Regents. For the retiring members of the Faculty, we express the hope that their lines may fall in pleasant places where their good qualities may continue to exert an influence in the enlightenment and upbuilding of such as we. For our Alma Mater, we will labor as we have done in the past, that its influence for good may bless many more of the young men and young women of the great State of Kansas.

"Resolved, That the President of this Association be directed to appoint a committee of five Alumni to devise a plan to secure the appointment in the future of Regents of the College, in such manner and by such authorities that political considerations shall have the minimum possible influence in determining the policy of the College and the personnel of the Faculty.

"Resolved, That the committee thus created be directed to present such plan with recommendations at the next annual meeting of this Association, and that they be authorized to publish their plans at any time previous to such meeting if they see fit."

The retiring members of the Faculty were elected

to honorary membership in the Alumni Association. The following are the officers for the coming year. President, W. E. Smith, '93; Vice-president, Stella Kimball, '94; Secretary, Elsie Crump, '95; Treasurer, D. H. Otis, '92.

Banquet and Reception by Alumni.

It was a successful reunion which the Alumni held on last Thursday evening. We would say that it was a pleasant occasion but for the fact that through the whole evening came the thought that the purpose of the reunion was to say farewell to the retiring members of the Faculty. The attendance of the Alumni was the largest that has ever been held at the College. Science Hall was opened to the Association and any question which had previously been asked in regard to the new building being suited to such receptions was answered by the experiment that evening. The first part of the evening was spent in making new acquaintances among the Alumni, and in renewing the friendships of by-gone years. The evening's entertainment, and the refreshments which were served from nine o'clock to eleven, were in charge of the Sophomore girls, assisted by those of their Junior sisters who have been taking special work in Mrs. Kedzie's department during the year. At eleven o'clock all gathered in the Webster and Alpha Beta Society room to express the farewells which had been postponed until this time. The music consisted of a guitar and mandolin duet by W. E. Smith, '93, and C. W. Lyman, '96, and a vocal solo by H. W. Jones, '88.

The following telegram was read:—

"Chicago, June 10.

"Greetings to the Alumni, to the President, and to the Faculty. Here's tears for the glorious past, hope through clouds for the future, and the will which must be taken for the deed.

"SISSON ['86] AND WHALEY ['86]."

In behalf of the Association, a farewell address was given to the retiring professors by Hon. Sam Kimble of the Class of '73. He said:—

ADDRESS BY THE ALUMNI.

Mr. President, Fellow Alumni, Ladies, and Gentlemen: The duty imposed upon me tonight is one of such surpassing importance and solemnity as to dwarf my appreciation of the high honor conferred upon me in having been selected by the Alumni Association to voice its sentiment at this time, in my apprehension and doubt of ability to express in fitting language the true feeling existing in my heart, and which I must assure you is only a reflex of that swelling up from the soul of every true alumnus and associated Faculty toward the guests whom we seek to honor.

To one who has witnessed the growth of the Kansas State Agricultural College from its infancy, from its very foundation, as I have done, and noted the development of its maturing strength through all the years and changes naturally incident to its history, who has grown with it, drank from its fountain of knowledge, passed out into the whirl of aggressive life, and thus felt the parting, and who has during these years watched with more quiet solicitude each recurring change and severance marking the tread of time, there perhaps comes a more softened and submissive spirit than to him who in earlier years meets with the first mutation of conditions dear to him and the permanency of which he deems absolutely necessary to his future love and allegiance.

This thought at first made me hesitate to enter upon the performance of the duty I undertake tonight, for it had seemed to me more fitting that these parting words to the members of the Faculty now about to bid us farewell, and who have been so long, so honorably, and so lovingly associated with this grand institution, should have been uttered by someone of our brotherhood more directly and personally associated with these retiring professors, and more especially one of us who had received his or her certificate of election from those gentle hands, under the admonition of that sacred and earnest heart of our retiring and loved President Fairchild.

Your orator, it must be remembered, received his credentials as a member of this Association from the hands of that pioneer administration in higher education in Kansas, headed by the thoughtful conscientiousness and dignified leadership of Dr. Denison, the first President of this College, which we now so justly term the first institution of its class in the Union. It was from that administration, which, struggling against the severest adversity of time and condition, was manfully and prayerfully standing by the gasping life of our infant College, we elder alumni received inspiration of purpose in life; a veneration not only for the institution of which we were a part, but of the deeper veneration, love, and loyalty to the President and Faculty under whose noble, self-sacrificing efforts and guidance we secured our training and derived such inspiration.

Coupled with such factors in our development, you could not wonder that at times at least a feeling of envy, a congratulatory feeling, should come to the elders in witnessing the more fortunate possession of those who not only had the advantage of equally able and earnest professors, in increased numbers, but with every increased facility and advantage incident to the accretion of the growing strength of the institution and the ability of our patriotic State to support and advance its material welfare as a seat of learning, and make it at once the pride of the student, the professor, and the whole people.

Such feeling of envy or regret, I can assure you, is only a passing thought, and quick to fade away under the maturing judgment of age, and more especially on an occasion like this, when we assemble once more about the sacred hearth-stone of alma mater, to grasp the warm hand of fellowship, look eye into eye, and mingle the conscientiousness of soul into soul, as one united child, express our highest appreciation and deepest reverence for these guardians of our educational footsteps,—the Faculty of the Kansas State Agricultural College,—and upon this particular occasion to express in addition our deep regret at parting, and our sincere farewell to this honored and distinguished President and his associates, whose lines of duty in life, at this time, lead them into other fields of labor.

Under such considerations and conditions, while not meeting my own particular views as to fitness, it may not have been out of place or at all injurious that your speaker should have been selected by your Executive Committee to represent the Association in expressing the feelings of the whole body under the broader view of our relations to each other, the Alumni of the College, expressing our true feeling of high appreciation, kindness, and regard for these members of our Faculty now about to bid us goodbye, rather than as a portion of graduates asserting in more impulsive terms their more intense personal love and regard for their professors.

It is but natural that the student of the College, entering this Association during the past seventeen years, should have a more intense and impulsive feeling of love and allegiance for President Fairchild and his associates than the alumni of earlier years, but I am here to assert, and from the depth of my heart, and I feel confident as the expression of all, that no one alumnus can surpass another in the high regard, respect for courteous, kindly conduct, honor for high educational attainments, earnestness, and honesty of purpose, and above all, the dignified and clear moral perception of every duty embodied in these guests, in whose especial honor this meeting of the whole Faculty and Alumni are assembled. Nay, more! I can assure you that no younger graduate can surpass or even equal the recognition of the virtues and high standing of these guests, held by every alumnus whose credentials date back of 1880.

It is simply marvelous to contemplate and fully comprehend the wonderful growth of this institution. To look upon its full development today is pleasing, most pleasing to the eye, as well as that satisfying sense of successful completeness—the perception that an enterprise in which we are personal factors and have a personal interest has advanced to a condition of practical perfection, is a model structure in all of its capacities and purposes, performing its fondly desired ends with a precision at once gratifying and valuable.

Such is the condition of today. Yet, only to the thoughtful and contemplative mind does such condition of magnitude and harmonious operation convey a fair measure of the wealth of labor, care, and solicitude expended in the progress made, the earnest perseverance of purpose, the patient subduing of infinite difficulties, and above all, the honest, self-sacrificing devotion of the administrations and

officers, more particularly the Faculty charged with the custody of this development.

Looking back into the years of youth, I can see again this College, standing on the hilltop west of its present location, a plain three-story structure, surmounted by, for that time, a somewhat ornate cupola, in which was lodged, by the gift of benevolent eastern friends, the old College bell, the same bell which sent forth its mellow tones to me as it has continued to speak to thousands to others, and speaks today to you, and will, I trust, continue to speak to the sense of thousands yet to come, blending the fast-dimming past, through brilliancy of the present, into the mystic but glorious future, as the embodied spirit of education, the eternity of soul, of this our glorious College.

Ah! Thou Bell! Our College Bell!
At thy tones our hearts shall swell;
Through our lives thy voice shall tell,
Joy to us, Oh College Bell!

Memory sweet on thee shall dwell;
Thou hast cast thy potent spell,
Till death shall ring, "All is well,"
Soul of soul, Old College Bell.

In those early days, I can well remember the worry and difficulties encountered by the early administration of the institution to make ends meet, to secure the necessary financial aid to meet the actual, though really limited operating expenses, and no one can ever know the full depth and extent of anxiety falling to the lot of those charged with the guidance at that time, except the custodians themselves, but I saw enough of warrant and solicitude on the kindly, earnest face of our then President to grasp something of the difficulties with which he and his associates grappled in building the foundation.

These difficulties, though great, by no means ceased through later years and subsequent administrations; they perhaps even increased in number at least, if not in magnitude; yet, with more extended facilities, influences, and aids for surmounting them, yet they all have been overcome by the honest, earnest work of these several custodians of the welfare of our College, and we view the completed fabric in all its fullness. From the single structure of four plain walls, cupola, and bell, we now behold the spreading College campus, dotted with its magnificent edifices, ornate in the architectural beauties of this age; in numbers amply sufficient, perhaps, to meet the practical requirements of an institution of our highest conception of its class.

We find a corps of college professors of the highest standing in educational circles, and eminently qualified to their special chairs; we find it endowed with a practically complete equipment and with a financial support which, though perhaps too limited, would have made the early fathers dream of the wealth of Aladdin; and among the many other valuable elements which constitute this complete development, I beg to mention with all due modesty, something to be cherished by the Faculty, present or absent, as the jewels of their creation, the evidence of the completeness of the work done by them and the success of the institution in which they have bestowed their best labors, to wit: An army, fast nearing the thousand mark, of noble, well-informed, well educated, loyal, patriotic men and women graduates, alumni of this College, scattered in the walks of life throughout the Union, doing honor to themselves and honor to this, their Alma Mater, and a limited representation of whom are able to be here present in behalf of all, to extend and do honor to the Faculty; on behalf of all, to bid farewell and bestow God's blessing on those from whom we, as a part of the institution itself, must separate. As the jewels of thy crystallization, we love thee and would cast light upon the pain of thy parting and as a star on which thine eyes may ever rest in sweetest remembrance.

The identification of the personality of a teacher in an institution of learning, evidenced by the product of its progress, has been a subject of remark and consideration among all interested in the higher education. That such stamping of personality exists, is recognized by all, and that the value of that stamp can never conceal itself or be misjudged under the examination of the finished product, is equally true.

It is the work of this institution to educate and qualify young men and women to be dignified, earnest, honest, practical, independent citizens, helpful of themselves, self-reliant and true to all that constitutes the best of manhood, womanhood. The institution neither claims nor seeks distinction in that line of education which inspires in its product a classification of society or a feeling of loathing of average conditions. It seeks not to teach discontent of our condition in life, but rather of contentment under a proper ambition to better our surroundings as may be; to use the best intelligence in the practical application to our better conditions of all natural powers and advantages at hand; to labor in field, shop, or office as our lot may fall, in the calm and dignified recognition of our own self-respect and the honest respectability of our callings. It teaches that we derive the best and highest just results from our own efforts. It teaches that it is manly and womanly to approach nature openly, boldly, confidently, with bare arms and healthy muscle and from her generous breasts dig and filter a full store of the milk of human happiness and development. It teaches a perfect respect for the conditions of others, yet discourages all effort to make an education sought only for social elevation.

It thus seeks the highest and best education as the means of bettering all mankind by making the individual better equipped and more capable for work. It seeks not to educate into idleness and capacity for affluent rest and disrespect of honest toil, but does educate to the intelligent enjoyment of the fruits of labor, while loving labor as the parent of fruitfulness. It seeks not vague and idle theories, but practical, productive facts.

Such being the legitimate aim of this institution,

it is pleasing to note that as a result of its development and progress and under the guidance of its custodians, it has been producing the good fruit.

Among those who have gone out from your care and guidance, a scrutiny of the records will disclose, with possibly a small percentage of exceptions, that no better equipped class of citizens adorn our country than those students who have gained inspiration at this fountain. They are found happy, self-reliant, capable, earnest, intelligent workers in God's vineyard, each conferring some influence toward the general welfare, vindicating the wisdom of the founders of this College of the people, in the beneficence of their aims. I challenge the closest scrutiny to find among past products of this institution a worthy Alumnus or retiring student who has not become imbued with a deeper and more wholesome respect for the average walks of life, more inclined to judge his fellow man, not by what particular work he does, but by the spirit and manner, the intelligence and justice, with which he does it.

Such being the fact, can anything speak in stronger words of commendation of the ladies and gentlemen in whose immediate charge such noble work has been prosecuted and accomplished. Past professorships have thus impressed their best personality on the work of the College. "By their fruits ye shall know them" has in no wise been said to their discomfiture.

Each of these in their long and arduous labors have placed their stamp upon the history of the institution which shall ever remain a fitting monument to their ability, their earnestness, and their self-devotion to the sacred duties in hand.

Our honored President has in his work and in the wisdom with which he has so many years guided the business and educational affairs of this now vast enterprise, and so successfully enlarged its scope of usefulness, again given a striking and dignified picture of the typical educated manhood so aptly described in the words of another in these terse and comprehensive lines:—

"He knew the depth,
And knew the height,
The bounds of darkness
And of light,
And he who these extremes has seen
Must needs know all that lies between."

Possessing in a high degree this enduring resource of knowledge, coupled with his dignified courtesy of conduct, has made his wonderful success as the chief executive as fully anticipated by his friends as it is now recognized by all. While we anticipate, and express confidence in our belief, that under the administration of his successor there shall be continued advance and good things in store for our loved institution, yet we must be pardoned for alluding to the fact, now a part of history, that under the guidance of President Fairchild and his associates the College has made wonderful progress, and given to the world the finished results most fondly desired; results and development which entitles us all to say, "Well done, thou good and faithful servant," accept from our hearts this crown of love and continued respect; results and success, indeed, which shall inspire their successors and those of the coming years to emulate their virtues and look upon their administration as a model and a guide to their own action, and most certain success in the performance of the sacred duties approaching their charge.

Their record will be studied, and, we feel assured, in sincerest rivalry, of an honest desire to secure the highest success, will be emulated by their successors in their efforts to continue and advance the noble work in hand. In so doing, their own success will be certain, and the mead of universal praise shall be secure to them, as well as the institution over which they preside.

Of the individual associates of President Fairchild, whom we seek to honor tonight, I cannot in my limited time speak in detail, but cannot refrain from alluding to the depth of feeling brightly burning in the hearts of all of love and respect for the "Queen of the College," the student's friend and guide and inspiration, the faithful, enthusiastic, and devoted Nellie S. Kedzie. Ah! that flush of modest renunciation of commendation well becomes you, thou perfect type of noble, self-sacrificing womanhood! What Alumnus who has come to know her and the force of her personality in this College but yields to her highest regard? What student who has been guided by her almost maternal solicitude, admonished to higher and better work, and whose rugged pathway at College has been brightened and cheered by her kindly interest, but feels the throb of pain at parting, feels the depth of love enshrined in his heart for her, even as the devotee to his Madonna, and in that devotion must ever retain the highest inspiration to do and perform noble deeds, if for no other end than to justify her approval? What member of the Faculty with whom she has so long associated but has come to feel that earnest respect and confidence in her as for a cherished sister and yields her a wreath of respect and commendation? What individual of her whole life and acquaintance but joins as one voice speaking with certain, though saddened tone, their love and appreciation of this earnest, true woman, and in expressing the sincerity of their regret at the farewell of one most highly esteemed? Not one. All, unite in the feeling of love and confidence inexpressible. No matter how much others may have done, no matter how much others shall do, to multiply the volume of successes here and dwarf the individual record in the general average, the impress made upon this institution and upon the minds and hearts of all connected with it by Mrs. Kedzie will ever stand out, clear and distinct, as embodying the highest success. It is needless to say good-bye to her, for while she must go, her personality must remain. She will not be forgotten. Enshrined not only in material works here, but, better still, in the

hearts of all, her personality is ours, her memory and her inspirations shall continue to grow, yielding sweetest blossoms and fruits in the years to come. Blessed be her pathway. May garnered flowers and a wealth of love surround her, even as her own sweet and earnest influence goes out to all about her to inspire and encourage.

Her life, her work, each kindly thought,
On other lives, their sweetness brought,
Enshrined in hearts is her renown;
Their love supreme, shall be her crown.

Of our other guests, I cannot speak personally, further than to express the highest appreciation of their work here and the fullest confidence in their qualifications, integrity, and the self-devotion with which they each have so conscientiously performed every duty. Their records are fully made, and of no word, sign, or letter therein need they have a doubt. They give ample evidence of the thorough performance of the purposes desired. From the Farm Department, with all its ramification of experimental and applied science, through the Laboratory and its hidden mysteries of matter being unfolded to the minds of men, even in the more erudite fields of information developed through the chairs of language, literature, mathematics, and others, we recognize and appreciate the earnest work performed and the valuable results secured, and all can justly feel that work has been furnished worthy of the workman, and labor has been performed worthy of the laborer.

I feel assured the Faculty remaining with the institution, and here uniting with us on this occasion in doing honor to our guests, join each and all in thus expressing our feeling and our commendation.

Mankind is a strong commingling of individualities, but it will be found as the emanation of a common fatherhood, pursuing different paths and entertaining differences of opinion on many minor matters, yet as an aggregate all seeking the same laudable purposes, the same betterment of mankind.

Here we meet on the level, and as brother to brother, sister to sister, wards to guardian, and as children to a common parent, join heart and soul in words of kindest feeling, one for another, and raising our eyes in united love to the Supreme Ruler, breathe an earnest prayer for the highest welfare and glory of our first love, our Alma Mater, The Kansas State Agricultural College, with words of kindest commendation, bidding God's benediction on all who have contributed to her success.

From the hearts of the Alumni, from the conscientiousness of the associated Faculty, and in truest love of thy qualities, we bid you, our cherished guests, a fondest farewell.

THE GUESTS SAY GOOD-BYE.

Responses were made by the outgoing members of the Faculty.

Prof. Mason was the first to be called. The thought which he expressed of pleasant associations to be discontinued was one which had come to each. In these associations, the College had become a part of the individual, and the individual in turn had left an influence with the institution.

Supt. Thompson leaves the work of the College with which he has so long been connected, but we are pleased to learn that he is not to cancel his immediate association with us. He will remain in Manhattan, the home which the past eleven years has made pleasant, and which promises to be quite as enjoyable for years to come.

Mr. Breese said that the reunion reminded him of a funeral. He had been active in preparing the entertainment, uncertain whether he would have the part of a mourner or of the corpse. It proved to be the latter, as he expressed it, "a part of whom I am which." "All things come to him who waits."

Dr. Mayo's response reminded us of his little speech the first morning he attended chapel exercises here seven years ago. At that time we took his remarks by faith, but in the past seven years all of us have learned to know the man who talked to us. We congratulate the institution which secures his services, and the best wishes of the Association go with him in his new work.

Prof. White will spend the coming year in Harvard University, continuing his work in history. With the degree of Ph. D. from Harvard added to the two degrees with which Princeton has already stamped its approval upon his work, Prof. White will easily find a better place than the chair which he leaves at the K. S. A. C.

Prof. Georgeson leaves the Faculty here for other fields of work, but where those fields are we cannot say. He has spent seven and one-half years in the chair of Agriculture, and he leaves the department in good condition.

In the eighteen years of Prof. Popenoe's work here, he has taught almost every subject in the curriculum. He has met with most of the Alumni in his classes in horticulture, zoölogy, entomology, botany, rhetoric, history, arithmetic, rhetorical, etc. Certainly Prof. Popenoe has had a wide field of influence, and he leaves his personality impressed on the institution.

Prof. Lantz entered the Faculty four years after Prof. Popenoe came. He has done faithful work, and he leaves his example of strong manhood, which all will remember. His ability as an instructor is recognized by all who are acquainted with the work of the College.

Prof. Failyer has been connected with the institution longer than anyone else in its history. There were fifteen members of the Alumni when he came, twenty-four years ago, and of the five hundred and sixty who have graduated in the last quarter of a century, all but twenty have been in his classes in chemistry. He will remain in Manhattan for some time, but wherever he is, we expect to see him each year in the regular Alumni meetings.

Perhaps no one will be missed more than Mrs.

(Concluded on page 160)

Calendar.

1896-97.

Fall Term—September 10th to December 19th.

Winter Term—January 5th to March 27th.

Spring Term—March 30th to June 10th.

June 10th, Commencement.

1897-98.

Fall Term—September 9th to December 18th.

To School Officers.

The College Loan Commissioner has funds now to invest in school district bonds at par. The law requires that no bonds be sold at par or less without being first offered to the State School Fund Commissioner and the State Agricultural College. Address

GENERAL LOCAL NOTES.

Mrs. Hitchcock has returned from a visit in Iowa.

State Superintendent Stryker visited the College last week.

Mrs. Nichols is in Chicago, where she will spend several weeks.

The attendance of Alumni was larger this year than ever before.

Pres. Fairchild, Dr. Mayo, and Mr. Breese have sold their horses.

The last number of the *Students' Herald* for the year was issued June 9th.

Several members of the Class of '97 are attending the county institute.

Hon. Ed. Secrest of Randolph was an interested visitor during the week.

Capt. Cavanaugh leaves on Monday to join his regiment, the Thirtieth Infantry, at Fort Niagara, Buffalo, N. Y.

E. O. Farrar, Third-year, and J. M. Pearce, Second-year, are delegates from the Young Men's Christian Association to the summer meeting at Lake Geneva.

The literary societies provided an entertainment on Saturday evening, June 5th—an impersonation of Rip Van Winkle by Herbert Sprague—which was enjoyed by a large audience.

Pages might be filled, did time and space permit, with interesting reports of the work of graduates. On the whole, they are successful in their various callings and live lives of usefulness, for which they accord alma mater due credit.

We admire the spirit that has prevailed during Commencement week. Unusual changes are taking place, and some friction was to be expected, but, from President down, everyone has manifested a spirit of fairness and forbearance that is highly commendable.—*Republic*. Thank you, thank you!

Mrs. Kedzie takes up work this fall in Bradley Polytechnic Institute, Peoria, Ill., the new school in connection with Chicago University. Her salary is sixteen hundred dollars at the beginning, and her work will be lighter than it has been in the Domestic Science Department here. We congratulate Bradley Institute, but Kansas regrets that we must lose while Illinois gains.

The Board of Education has selected the following teachers for the ensuing year: Laura Waters, Lucy Waters, Martha Harvey, Will E. Smith, Emma Spohr, Elsie Crump, Anna Hall, Delpha Hoop, Myrtle Harrington, Angie Young, Hattie Smith, Stella Kimball, Winifred Houghton, Edith Stafford. Eight of these teachers are graduates of the College, and two are former students.

Riley County Populists adopted the following resolution among others at a conference held in Harrop's Hall on Wednesday, June 9th: "Resolved, That we do most heartily approve of the reorganization of the Kansas State Agricultural College, and express our unbounded confidence in the Board of Regents. Politics is only incidental in the changes which are being made. The unalterable purpose is to fill the vacancies with better men than their predecessors, and to give the College a still higher place among the educational institutions of the world. Time will fully demonstrate the wisdom of what is being done."

The good music of Commencement week won many compliments. It was furnished by the Music Department under the direction of Prof. Brown. The *Republic* well says: "There is one man who is well-nigh indispensable at the College, but whose services cannot be more appreciated than they are down town. We refer to Prof. Brown, who has charge of the music. His part of a program never fails, and it is wonderful what music he gets out of his classes—all amateurs. There is no busier man on the Hill, competent, faithful, and enthusiastic. We think the music at the present Commencement is the best in the history of the College."

GRADUATES AND FORMER STUDENTS.

C. W. Nelson, Second-year in 1895-6, is farming at Michigan Valley.

Asa Smith, Second-year in 1894-5, is doing editorial work on the San Diego (Cal.) *Progress*.

R. M. Lee, Second-year in 1894-5, was up from Kansas City to see his class graduate.

C. D. Adams, '95, has been appointed a teacher in the Deaf and Dumb Institution at Olathe.

A. G. Wilson, Third-year in the winter term, put in his appearance for Commencement.

C. F. Doane and Miss Maggie Carleton, members of the Class of '96, were married at the bride's home in

this city Thursday evening, June 10th. Their new home will be in Milwaukee, Wisconsin. Mr. Doane is agricultural editor of the *Journal*.

Miriam Swingle, '96, entertained visiting members of her class one evening last week.

M. F. Hulett, '93, of Kirksville, Mo., found it impossible to leave his new boy, even to attend Commencement.

Chas. Howard of Osage City was here to stay over and see the class of '97 graduate. He was a First-year in 1894-5.

B. W. Conrad, '95, was accompanied by his wife, Bertha Steele-Conrad, Third-year in 1894-5, and their baby daughter.

L. C. Criner, '92, has bought his partner's interest in the McPherson *Opinion*, becoming thereby editor and sole owner.

Lorena Helder, '94, assistant in music, studies in Chicago this summer under Prof. W. B. S. Matthews, a teacher of note.

A number of the students, not the Class of '97, as printed in one paper, gave a dance in the city hall last Monday evening.

F. J. Smith, '95, and Laura McKeen-Smith, '95, were kept at home in Russell by an added responsibility in the shape of a young son.

Sue Long, '96, prepared an excellent report of Commencement for the *Nationalist*, on which paper she is regularly employed as news gatherer.

D. W. Working, '88, late Secretary of Colorado Agricultural College, wrote up College affairs and Commencement for the *Denver News*.

T. M. Robertson, '97, goes to Scandia next week to take charge of the *Journal* office. A. B. Kimball, '88, the editor, is appointed Postmaster.

J. D. Riddell, '93, is to be married on Wednesday to Miss Doris Kinney, at Omaha. Dr. Riddell will take his wife to Enterprise, where he has established a good practice.

Geo. E. Stoker, '90, is to be married, June 16th at Topeka, to Miss Edith Isbell. At home, after July 15th, Hotel Throop. Mr. Stoker is a rising young lawyer of the Capital City in partnership with C. J. Dobbs, '90.

P. S. Creager, '90, news editor of the *Kansas City Journal*, visited College during Commencement for the first time in four years. He works seven days a week, but looks forward to a life of ease (!) as editor of an agricultural paper in the great west.

J. B. S. Norton and Miss Gertrude Havens, of the Class of '96, were married at the home of the bride in Manhattan, Monday, June 14th, Rev. Riley officiating. Mr. and Mrs. Norton will make their new home in St. Louis, where Mr. Norton will continue his work in botany in the Shaw Gardens.

M. A. Carleton, '87, Assistant in the Division of Vegetable Pathology, U. S. Department of Agriculture at Washington, is here for the summer to conduct rust inoculation experiments in laboratory and greenhouse. Rusts occur in greater variety in Kansas than in the east, and to include all of them, experiments must be made here. Mr. Carleton will grow cereals and grasses in the greenhouse, and will inoculate them with rusts from wild plants for the purpose of determining, if possible, the source of rusts in their early stages, when they may be more easily combatted.

Board Meeting.

The Regents were in session from Monday afternoon, June 7th, to Friday noon, June 11th. All the members were present, but Regent Kelley, the President, being ill, was excused from many of the meetings, Mrs. St. John presiding in his absence. In view of the fact that President-elect Will needs to be familiar with the work of the Board, he was invited to be present at the meetings.

The Committee on Buildings and Grounds reported a meeting of said committee on May 11th, to open bids for construction of Domestic Science Hall, and the letting of the contract to Mr. L. D. Eversole, of Topeka, the lowest bidder. The proceedings of that meeting were adopted and approved by the Board. The Committee reported that Regents Limbocker, Daughters, and Hudson are made a sub-committee for action in emergencies.

The Faculty having been asked by the Board at its last meeting to make recommendations as to the course in agriculture, and the farm and garden industrials, reported that in view of the contemplated reorganization of Faculty and course of study, that body did not feel competent to recommend any change in the present course of study, which report was accepted.

A question having been raised as to the salaries to be paid after the publication of the Statute Book, including directions from the Legislature, the Secretary presented the opinion of the Attorney-general that those directions go into effect at the beginning of the next fiscal year, and accordingly it was voted that the Treasurer be instructed to pay the salaries of the Faculty and employes up to July 1st, next, as heretofore paid.

Upon oral recommendation from the Chairman of the Committee on Employes, Mr. Charles S. Davis, of Junction City, was appointed Superintendent of Printing. Mr. Davis was given an opportunity to state his views as to the management of the printing office, including the printing of the *Students' Herald*.

Prof. Will presented a proposition from the stockholders of the *Students' Herald*. After consideration, a committee was appointed to report at the next meeting upon both the printing of *Students' Herald*, and the conduct of the *INDUSTRIALIST* during the next year. Regents Hudson and Hoffman and Supt. Davis are the committee. Later, a committee from the stockholders of the *Students' Herald* was given a hearing, and the above-named committee was authorized to act upon the question involved.

The Chairman of the Committee on Employes stated to the Board that under the direction of that Committee, the Secretary had applied to the War Department for detail of Lieut. Ralph Harrison, of the Second Cavalry, as Professor of Military Science and Tactics, to succeed Captain Cavanaugh, and a special order, No. 102, had been issued by the War Department on May 3rd, making such detail. The action thus reported was approved by the Board.

Reports from the Committee on Employes were received at various times, and adopted, as follows:

"Committee on Employes recommend the employment of Mrs. Helen Campbell for the chair of Household Economy and Hygiene; the employment of Profs. Frank Parsons, J. Allen Smith, and Edward W. Bemis, provided satisfactory arrangements can be made as to salaries and adjustment of work and time."

"Your Committee beg leave to report: We recommend that the Secretary of the Board be and is hereby instructed to notify Profs. F. H. White, N. S. Mayo, E. A. Popenoe, and C. M. Breese that the Board of Regents have decided to change instructors in their several chairs, and that they be advised at the earliest possible moment that their term of service will end as by previous resolution of the Board of Regents on June 30th, 1897. We recommend that Prof. J. L. Beeson, Ph. D., (Johns Hopkins) be employed to fill the chair of Chemistry and for such other work as may be assigned to him. We beg leave to report progress and ask further time."

"Your Committee beg leave to report: We recommend that President-elect Will be and is hereby authorized to employ a private secretary at a salary not to exceed \$800 per annum; that Miss High be elected for assistant in the Sewing Department; that William Baxter be re-employed foreman of the greenhouse; that F. A. Marlatt be not re-employed; that F. C. Burtis be re-employed; that G. L. Clothier be re-employed; that a competent assistant in Household Economy be employed at the proper time."

A recommendation of the Committee as to further inquiry into the qualifications of candidates for the chairs of Agriculture, Veterinary Science and Physiology, Horticulture, Entomology, Elocution and Oratory, was referred back to the Committee, with authority to act.

By vote of the Board, a chair of Oratory and Elocution was established.

A request from the Assistant State Treasurer for the refunding of \$5.40, accrued interest collected upon coupons unpaid, while funds for the payment were available at the Fiscal Agency in New York, having been presented, the Treasurer was authorized to pay the claim.

A bill of the United States Furniture Company, amounting to \$60, for furniture ordered by the State Board of Public Works, in 1894, was presented, and the Secretary was directed to inform said company that the Board has no fund for payment of the bill, but will certify it to the next Legislature as a true bill.

An offer of \$620 for the west half of northwest quarter of 20-14-1, was refused.

The request of Messrs. Hume and Whitlow, assignees to the contract for northwest 20-12-17, that a new contract be given them at 6 per cent interest, was denied.

Bids for re-insurance of certain property of the United States were requested for June 9th; and on that date the Secretary was instructed to reinsure the government property, so far as insurance expires this month, at the most reasonable terms to be secured.

The Station Council was directed to make the annual report of the Station, at the close of the fiscal year, June 30, instead of at the close of the calendar year, as heretofore. The Station Council was also directed to submit estimates for proceeding with the work now under way, during the next quarter. The Council having presented such estimates, amounting to \$1,644.97, the same were approved.

The Librarian was allowed not to exceed \$100 for labor during vacation. Prof. Hitchcock was authorized to expend not to exceed \$130 for labor and expenses of a vacation trip in collecting; also \$2.46 for a cut of the Botanical Department. Prof. Will was authorized to expend not to exceed \$75 for the Department of Economic Science. A recommendation of Prof. Mason of model fruits for the Horticultural Museum was referred to a Committee on Horticulture, to report at the next meeting. A request of Prof. Failyer that the Chemical Department be provided with a compound microscope, and that of Prof. Hitchcock as to model flowers, were laid over till the next meeting.

President-Elect Will was directed to prepare matter for a ten-thousand edition of an eight-page *INDUSTRIALIST*, on or about July 1st. He was also authorized to have printed and published such notices, cards, and circulars as he shall deem advisable and for the best interests of the College, and to enable him promptly so to do, he is also empowered to procure necessary help, or to have the printing done where most convenient to him. He is also authorized and empowered to employ such temporary assistants in the various College and Station departments and other places as in his judgment shall be found necessary, during vacation, provided no greater salary or salaries shall be paid employes than is now being paid and provided for by law.

The expenditure of the appropriation for general repairs was put in charge of a special committee consisting of Regent Limbocker, President-Elect Will, and Prof. Hood. Prof. Hood's request for leave of absence during a portion of the vacation was referred to the same committee.

The resident Regent was appointed a committee to settle with President Fairchild for rent accrued and to draw a voucher therefor.

The special committee appointed to settle with Ex-Treasurer Daughters reported the settlement incomplete, because of a slight discrepancy between the books of the Treasurer and those of the Secretary. The whole matter was referred to the Finance Committee to investigate and adjust.

The following resolution was adopted: "Resolved, by the Board of Regents that the Treasurer be and is hereby directed to borrow sufficient funds to meet the pay-rolls of the College for the remainder of the year, including the months of April, May, and June, at not to exceed ten per cent per annum."

It was ordered that the several professors and officers having charge of departments make their inventory on or before July 1st, next, including both the cost, or the price at the last inventory, and the estimated present value of each article inventoried. Regent Limbocker was appointed to assist the heads of the various departments in making such inventory and appraisal.

President-Elect Will was appointed a second delegate to the meeting of the Association of American Agricultural Colleges and Experiment Stations, with the provision that he be representative of the College, and President Fairchild of the Station, in said meeting. Regent Hudson was appointed representative of the College at the Irrigation Convention to be held in Utah, some time in July next.

The honorary degree of Master of Arts was conferred upon Prof. Oscar E. Olin. The degree of Master of Science was conferred upon the seven candidates recommended by the Faculty, whose names are given elsewhere. The degree of Bachelor of Science was conferred upon the fifty-five candidates as named in connection with the Commencement program, they having been recommended by the Faculty.

Thirteen professors and other officers not re-employed by the Board appeared before that body and offered for filing the following notice:—

"To the Honorable Board of Regents, Kansas State Agricultural College: Gentlemen—Having been notified by the Board that our term of service will end as by previous resolution of the Board of Regents, on June 30th, 1897, we hereby give you official notice that we stand ready to perform our duties in the College up to Sept. 1st, 1897, and we shall expect compensation for the full year in accordance with our contract."

The notice was received and referred to a committee of three, appointed by the chair; viz., Regents Hudson, Daughters, and Hoffman.

A motion that the Secretary be directed to inform appointees to the various positions that their terms of office would begin September 1st next, was lost.

A request from the contractor for stone work on Domestic Science Hall, for the privilege of weighing stone upon the College scales, was referred to Regent Limbocker for action.

The following resolution offered by Regent Hudson was adopted by an aye and no vote, as follows: aye, Regents Hoffman, Hudson, St. John, and Limbocker; no, Regents Daughters and Noe.

"Resolved, by the Board of Regents of the Kansas State Agricultural College, that

"Whereas, a number of Republicans claiming to represent the College Alumni met in the College chapel yesterday afternoon for purely political purposes, under the guise of the annual meeting of said Society, and at said meeting made speeches and passed resolutions derogatory of the action and work of the present Board of Regents, for the purpose of injuring the good name and future usefulness of the State Agricultural College, they by their action preferring political advantage to the future of the College and its Alumni, and

"Whereas, free speech was denied and hissed at said meeting,

"Now, therefore, the President and the Faculty are directed to hereafter keep the College chapel and halls free from all partisan political meetings."

The Board adjourned to meet on Wednesday, June 30th, next, at 3:30 P. M.

THE ALUMNI.

(Continued from page 158.)

Nellie S. Kedzie. Her place will be most difficult to fill, for her influence has not been limited to any one department. Her work in domestic economy has won for her a national reputation, but her real work has been in the building of the characters of the young women and young men who have been associated with her in the past fifteen years. We are glad that Mrs. Kedzie goes to a better place, as she leaves the K. S. A. C., but the whole institution is selfish enough to regret that such a change is made.

As President Fairchild was called to say good-bye, the audience arose as by a common impulse. Eighteen years ago President Fairchild received a telegram asking him to accept the presidency of a little western college at Manhattan, Kansas. After careful investigation, he decided to leave the place where fifteen years of his young manhood's work had been done; and in December, 1879, he began his work here. The name of President Fairchild will ever be associated with the growth of the institution. From his hands five hundred and twenty-six of the five hundred and seventy-five graduates have received their diplomas. For

nearly a third of a century he has been associated with college work, but now comes a recreation.

The retiring members of the Faculty can feel that they leave in good company, and that the best wishes of the Alumni and a host of friends go with them.

C. C. SMITH, '94.

Graduates Present.

1867—Emma L. Haines-Bowen, A. M., Manhattan, Kansas.

1873—Sam Kimble, A. B., Manhattan, Kansas, lawyer.

1874—A. Judson White, A. B., Manhattan, Kansas, minister.

1875—Reuben E. Lofink, B. S., Manhattan, Kansas, merchant.

1876—Nellie Sawyer-Kedzie, M. S., Manhattan, Kansas. Professor of Household Economy and Hygiene, Kansas State Agricultural College.

1877—Ella S. Child, B. S., Manhattan, Kansas, dressmaker; George S. Failyer, M. S., Manhattan, Kas., Professor of Chemistry, Kansas State Agricultural College; J. F. Griffin, M. S., Topeka, Kans., merchant; William Ulrich, M. S., Manhattan, contractor and builder.

1882—Mattie E. Mails-Coons, B. S., Manhattan, housewife.

1883—James W. Berry, B. S., Jewell City, Kansas, farmer, contractor, and builder; Mary C. Bowen, B. S., Manhattan, clerk; William J. Griffing, B. S., Manhattan, farmer and fruit grower; Phoebe E. Haines, M. S., Manhattan, postgraduate, K. S. A. C.; Jacob Lund, M. S., Manhattan, fireman and steam fitter, K. S. A. C.; Julius T. Willard, M. S., Manhattan, Assistant Professor of Chemistry, Kansas State Agricultural College.

1884—Lincoln H. Neiswender, B. S., Silver Lake, Kansas, farmer.

1885—Arthur L. Noyes, B. S., Wabaunsee, Kas., farmer.

1886—H. Augustus Platt, B. S., Guthrie, O. T., editor; David G. Robertson, B. S. Chicago, Ill., lawyer.

1887—Claude M. Breese, M. S., Manhattan, Assistant in Chemistry, K. S. A. C.; John B. Brown, M. S., Holton, Kas., Superintendent of Indian School; Mark A. Carleton, M. S., Washington, D. C., Assistant in division of vegetable pathology, U. S. department of agriculture; Frederick B. Elliott, B. S., Manhattan, real-estate and insurance agent; Frederick A. Marlatt, B. S., Manhattan, assistant in entomology, Experiment Station, Kansas Agricultural College; Mary E. Moses, B. S., Manhattan, at home.

1888—Bertha H. Bacheller, M. S., Junction City, Kansas, teacher; Humphrey W. Jones, B. S., Alma, Kansas, principal of school; Lora L. Waters, M. S., Manhattan, teacher; Daniel W. Working, Jr., B. S., Fort Collins, Colo., Secretary State Board of Agriculture.

1889—Judson H. Criswell, B. S., Manhattan, farmer; Mary C. Lee, B. S., Manhattan, postgraduate student, Kansas State Agricultural College.

1890—Grant W. Dewey, B. S., Manhattan, photographer; Schuyler C. Harner, B. S., Leonardville, Kas., teacher and farmer; Bertha S. Kimball, M. S., Manhattan, postgraduate student and microscopic draughtsman, K. S. A. C.; Silas C. Mason, M. S., Manhattan, Professor of Horticulture, K. S. A. C.; Julia R. Pearce, B. S., Manhattan, Kas., Librarian, Kansas State Agricultural College; Harry N. Whitford, B. S., Manhattan, postgraduate, Kansas Agricultural College.

1891—Herman William Avery, B. S., Wakefield, Kas., farmer; Judd Noble Bridgman, M. S., Atchison, Kas., merchant; Robert J. Brock B. S., Manhattan, lawyer; Francis Charles Burtis, M. S., Manhattan, Kas., Assistant in Agriculture, Experiment Station, K. S. A. C.; Phil Sheridan Creager, B. S., Kansas City, Mo., editor; Kary Cadmus Davis, B. S., Austin, Minn., Principal State High School; Anna Fairchild-White, B. S., Manhattan, housewife; Amy Myrtle Harrington, B. S., Manhattan, teacher; Delpha May Hoop, B. S., Manhattan, teacher; Mayme Amelia Houghton-Brock, B. S., Manhattan, housewife; Willis Wesley Hutto, B. S., Manhattan, teacher; Caroline Scott Stingly-Van Blarcom, B. S., Kansas City, Kas., housewife; Lillian Alice St. John, B. S., Manhattan, teacher; Sam L. Van Blarcom, B. S., Kansas City, Kansas, railway postal clerk; Fannie Elizabeth Waugh-Davis, B. S., Austin, Minn., teacher; Flora Emilie Wiest, B. S., Manhattan, Kansas, teacher; Bertha Winchup, B. S., Manhattan, assistant in sewing, K. S. A. C.

1892—Grace Maria Clark, B. S., Manhattan, clerk in executive offices and postgraduate student, K. S. A. C.; George L. Clothier, B. S., Manhattan, postgraduate student, K. S. A. C.; Lillian Clyde Criner, B. S., McPherson, Kas., editor; Elizabeth Edwards, B. S., Randolph, Kansas, teacher; Charles Pickney Hartley, B. S., Frazer, Idaho, horticulturist; John William Abraham Hartly, B. S., Manhattan, teacher and horticulturist; Daniel Henry Otis, B. S., Manhattan, assistant in agriculture, Experiment Station, K. S. A. C.; Elias W. Reed, B. S., Avoca, Kansas, farmer; Robert Stirling Reed, B. S., Elmdale, Kas., teacher; Birdie E. Secrest, B. S., Randolph, Kansas, clerk; May Secrest, B. S., Randolph, Kas., at home.

1893—Corinne Louise Daly-Burtis, B. S., Manhattan, Kansas, housewife; Albert Dickens, B. S., Bushon, Kansas, teacher; Mary Maude Gardiner, B. S., Manhattan, Kansas, postgraduate student, Kansas State Agricultural College; Mary Francis Burgoyne Harman, B. S., Valley Falls, Kansas, teacher; Ivy Francis Harner, B. S., Manhattan, Kansas, postgraduate student, Kansas State Agricultural College; Fred Hulse, B. S., Keats, Kansas, farmer; Thomas Eddy Lyon, B. S., Keats, Kansas, farmer and teach-

er; Rose Edith McDowell, B. S., Manhattan, Kansas, at home; Nora Newell, B. S., Vinton, Kansas, teacher; August Fred. Niemoller, B. S., Emporia, Kansas, student State Normal School; John Dewitt Riddell, B. S., M. D., Enterprise, Kas., physician; Fred. Raymond Smith, B. S., Manhattan, Kas., lawyer; George Wildman Smith, B. S., Minneapolis, Kansas, Principal of high school; William Elmer Smith, B. S., Manhattan, Kansas, principal of schools.

1894—Clara Francelia Castle, B. S., Manhattan, Kansas, postgraduate student, Kansas State Agricultural College; George Luther Christensen, B. S., Manhattan, Kansas, postgraduate student, Kansas State Agricultural College; John Cornelius Christensen, B. S., Mariadahl, Kansas, Teacher; Lorena Estella Clemons, B. S., Manhattan, Kansas, Clerk in Secretary's office, and postgraduate student, Kansas State Agricultural College; Martha Cottrell, B. S., Wabaunsee, Kansas, at home; Alverta May Cress, B. S., Manhattan, Kansas, postgraduate student, Kansas State Agricultural College; Eugene Leonard Frowe, B. S., Louisville, Kansas, farmer; Lorena Marguerite Helder, B. S., Manhattan, Kansas, postgraduate student, and student instructor, Kansas State Agricultural College; Isaac Jones, Jr., B. S., Manhattan, Kas., Assistant in Horticulture, Kansas State Agricultural College; Stella Victoria Kimball, B. S., Manhattan, Kansas, teacher; Mary Eliza Lyman, B. S., Manhattan, Kas., postgraduate; William Henry Moore, B. S., Manhattan, Kas., Horticulturist and postgraduate student, Kansas State Agricultural College; Minnie Louisa Romick, B. S., Niles, Kansas; Jacob Ulrich Secrest, B. S., Randolph, Kansas, farmer; Charles Chrisfield Smith, B. S., Greencastle, Ind., student, De Pauw University; Jennie Ruth Smith, B. S., Manhattan, Kas., teacher; John Stingley, B. S., Kansas City, Kansas, undertaker; Phoebe Carey Turner, B. S., Maple Hill, Kas., at home; Samuel Robert Vincent, B. S., Orie, Ok., farmer; Lucy Helena Waters, B. S., Manhattan, Kansas, teacher.

1895—Carl D. Adams, B. S., Osawkie, Kansas, teacher; Robert John Barnett, B. S., Emporia, Kansas, student, State Normal School; Burton Wesley Conrad, B. S., Capioma, Kansas, farmer; Forence Corbett, B. S., Manhattan, Kansas, teacher; Sid Henry Creager, B. S., journalist, Kansas City, Mo.; Elsie Emeline Crump, B. S., Manhattan, Kansas, teacher; David Thomas Davies, B. S., Manhattan, Kansas, farmer; Frank Andrew Dawley, B. S., Vincent, Kansas, farmer and teacher; Daisy Day, B. S., Manhattan, Kansas, postgraduate student, Kansas State Agricultural College; George Adam Dean, B. S., Topeka, Kansas, farmer; Lillie Christena Dial, B. S., Cleburne, Kansas, teacher; Victor Emrick, B. S., St. Mary's, teacher; Hortensia Harman, B. S., Valley Falls, Kansas, at home; John Bright Harman, Valley Falls, Kansas, editor; Samuel Alexander McDowell, B. S., Manhattan, Kansas, clerk; William H. Phipps, B. S., Abilene, Kansas, principal of schools; Frederick Ellsworth Rader, B. S., Manhattan, Kansas, teacher; Ralph Waldo Rader, B. S., Manhattan, Kansas, farmer; Ada Rice, B. S., Manhattan, Kansas, teacher and postgraduate student, Kansas State Agricultural College; Ernest P. Smith, B. S., Manhattan, Kansas, carpenter; Kitty Myrtle Smith, B. S., Manhattan, Kansas, at home; Marietta Smith, B. S., Manhattan, Kansas, at home; Cora Idell Stump, B. S., Manhattan, Kansas, at home; Dora Thompson-Winter, B. S., Blue Rapids, Kansas, housewife; Elven Creveling Tremby, B. S., Council Grove, Kansas, farmer; Ora Gertrude Yenawine, B. S., Manhattan, Kansas, teacher.

1896—May Haines Bowen, Manhattan, at home; Con Morrison Buck, Manhattan, assistant in drawing, Kansas Agricultural College; Margaret Isaphene Carleton-Doane, Milwaukee, Wis., housewife; Charlotte Mabel Cotton Smith, Manhattan, housewife; George Henry Dial, Cleburne, Kansas, farmer, Chas. Francis Doane, Milwaukee, Wis., agricultural editor of *Journal*; Robert Kilby Farrar, Axtell, farmer; George William Finley, Manhattan, teacher; John Jacob Fryhofer, Randolph, farmer; Elmer George Gibson, Willard, teacher; Alonzo Charles Havens, Manhattan, farmer; Gertrude Julia Havens, Manhattan, at home; Lawrence Wilbur Hayes, Topeka, attendant, State Asylum; Henry George Johnson, Assaria, Kansas, farmer; Susan Effie Johnson, Success, Kansas, teacher; Marian Elizabeth Jones, Manhattan, Kansas, teacher; Thomas Lormar Jones, Manhattan, Kansas, teacher; Edward Clarence Joss, Fairview, Kansas, merchant; Royal S. Kellogg, Fay, Kansas, farmer; Edith Lynnette Lantz, Manhattan, Kansas, at home; Sue Long, Manhattan, Kansas, reporter; Charles W. Lyman, Manhattan, Kansas, teacher; Charles Dwin McCauley, Wilburn, Kansas, teacher; Mrs. Elda Lenore Moore, Manhattan, Kansas, housewife; Clara Verena Newell, Manhattan, Kansas, clerk; Ellen Elizabeth Norton, Manhattan, Kansas, at home; John Bitting Smith Norton, St. Louis, Mo., botanist, Shaw Gardens; Charles Edwin Pincomb, Hector, Kas., farmer; Mary Josephine Pincomb, Hector, Kas., at home; Edgar Arthur Powell, Osage City, Kas., farmer; Howard Newton Rhodes, Manhattan, Kas., teacher; Ambrose Elliot Ridenour, Manhattan, Kas., law student; Mary Etta Ridenour, telephone operator; Grace Anna Secrest, Randolph, Kas., at home; Max Gilbert Spaulding, Eureka, Kas., carpenter; Orville Ashford Stingley, Manhattan, Kas., carpenter; Sadie Stingley, Manhattan, Kansas, teacher; Gertrude Ella Stump, Manhattan, Kansas, at home; Miriam Esther Swingle, Manhattan, Kansas, postgraduate; William Elwood Thackrey, Manhattan, Kansas, farmer; James Dunbar Trumbull, Manhattan, Kansas, clerk; Frank Edwin Uhl, Gardner, Kansas, farmer.

The weather report for May is omitted for want of room.

THE INDUSTRIALIST.

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MANHATTAN, KANSAS, THURSDAY, JULY 15, 1897.

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THE REORGANIZATION OF THE KANSAS STATE AGRICULTURAL COLLEGE.

A Statement made by the Board of Regents, on the Occasion of the Change in Administration of the College, July 1, 1897.

THE Board of Regents of the Kansas State Agricultural College, having been duly invested by the people of the State of Kansas, through their lawfully constituted authorities, with full power to administer the affairs of said College; and recognizing our responsibility to the people of this State, submit the following statement of reasons for certain changes we have recently made at that institution.

Following are facts which said Board of Regents are prepared to substantiate:

1. The government of the institution, which by law is vested in a Board of Regents, appointed by the Governor and confirmed by the Senate, has been practically assumed and for years exercised by a single employee of the Board, filling the office of President of the College, the Board having been reduced, meanwhile, to the rank of a mere auditing committee. The attempt of the present Board regularly to exercise our lawful functions was resisted by him, and led to his voluntary and unsuggested resignation.

2. The tendency in the past to swamp the Faculty with half-educated men has been so marked as to excite comment. Of all those removed, one alone, who himself has been succeeded by an abler man, could claim to have made fairly respectable special preparation for the high duties of professor in a college. That this condition of affairs was satisfactory to the outgoing President is evidenced not only by the fact that these professors came, or at least remained, by his sanction, but by the following official declaration from his pen: "It is rare, indeed, that so efficient a corps of instructors can be retained as ours has been." (Tenth and last biennial report of Board of Regents to Governor of Kansas, page 31.) Yet, notwithstanding the now considerably reduced schedule of salaries, and the false light in which certain persons and newspapers have endeavored to place this institution and its present management, men and women trained in the best universities of America and Europe have applied to us for professorships.

3. Despite the imperative need for a strong agricultural department in the agricultural college of a state whose leading interests are agricultural; and despite the fact that the land grant colleges were established and are still maintained for the special benefit of the agricultural and industrial classes, the inefficiency of the agricultural as compared to the other departments of the College is notorious, both at the College and throughout the State. Nevertheless, every attempt to strengthen the agricultural department, whether by increasing its work, or by filling it with a more capable professor, has been until now steadily and successfully resisted by the President. Other departments whose work should be of great practical value to farmers, fruit growers, and stock raisers have similarly been characterized by incapacity well known to those familiar with the College.

4. While some departments have thus been crippled by the inefficiency of their heads, others have been neglected by professors and superintendents who have regarded their offices more as sinecures than as fields of labor;—the work of a certain department having been left, not occasionally, but habitually, in the hands of an assistant that the head might witness or engage in sports.

5. The distribution of work among the professors has been such that while some have been left for an entire term practically without duties or responsibilities, and certainly without teaching, others have during the same terms been overwhelmed with their own work, and even with that of other departments.

6. The conduct of the Experiment Station has in cases been scandalous; so much so in fact as to elicit warnings from friends of the outgoing administration, and a vehement attack by the leading Republican organ of the State. (See *Topeka Capital*: Feb. 5, 1897, page 4, column 3; Feb. 12, 1897, page 4, columns 3, 4, 5.) While certain members of the Station Council, with their assistants, have done the work which has enabled the Station to maintain its standing at Washington, others with their assistants have satisfied themselves primarily with drawing their salaries,—one department having published nothing to show for its work and receipts since its separate establishment in September, 1894; and its head having done apparently almost nothing in the way of experimental work and publication since 1890, if not since 1888.

7. In addition to the preceding, there exist certain differences (not political) between the Board and the retiring administration,—differences regarding the degree of freedom which should be accorded to students in the choice of studies; in the expression of opinion, as through the College paper; and in the opportunity to become in a measure acquainted with the College world.

We differ in part from the outgoing administration on questions of the administration of discipline; the Board believing that in certain well defined cases students have been provoked by professors into acts of insubordination, and then punished; said professors escaping uncensured, save by public opinion.

We differ fundamentally, moreover, with respect to certain aspects of the work of an agricultural college. Hitherto the attempt has been made in this College to impart to students the rudiments of a general education, to supplement this with a measure of instruction of college grade, to train the hands in in-

dustrial work, and to prepare the students for the function of wealth producers. All of this, generally speaking, and so far as it goes, we endorse. We hold, however, that the time has come when such an education no longer suffices for the wants either of the student or of the agricultural and industrial classes. The wide diffusion of popular education has practically destroyed the scholar's monopoly, and the college graduate is found in the ranks of the unemployed. Further, to seek to advance the interests of the producing classes by teaching them simply to produce more abundantly no longer meets their requirements; for, by common consent, they are already over-producing the staples and, in large part, the luxuries of life; such over-production, accompanied by a corresponding under-consumption on the part of a majority of the population, resulting in ruinously low prices, and in gluts and industrial stagnation. We believe the time has fully come when the producing classes must grapple scientifically and intelligently with the principles governing distribution and exchange. This necessity, however, the retiring administration would not concede. Attempts made in the past to enlarge the facilities for such instruction, not on partisan, but on scientific, lines, have been steadily and vigorously opposed both by the President and by an overwhelming majority of the Faculty. With the issue thus clearly defined, it became inevitable that either the Board or the President and Faculty must give way.

In view of the foregoing facts, this Board resolved at its April meeting to take action. Such action, however, was not hasty. One member of its majority is an old resident of Manhattan and patron of the institution; two others have served each a full three-year term on a previous board, and have long been convinced of the need for a thorough reorganization of the College. The Board began by removing five professors and superintendents, while the President and two professors resigned, one resignation being independent of the reorganization. At the first June meeting, three other professors whose cases had been left pending were removed, and with them two assistants. At the second June meeting another voluntary resignation occurred. These places the Board are filling with the best available talent in the world of scholarship.

As to the political aspect of the changes, made: on the resignation of the President, a strong Republican, the Board appointed in his stead a professor who has declared himself, to boards Republican, Democratic, and Populist, to be an independent in politics. Of the fourteen members of the old Faculty to whom positions were offered, twelve were understood to be Republicans. These were retained because they were believed to be competent to perform the work of their several departments. As documentary evidence in our possession shows, we have endeavored, regardless of politics, to secure for the vacant places men and women of the most thorough equipment. We have elected men to important positions without inquiring or learning their political preferences, and we have elected to the chair of economic science a professor whose views on certain economic questions we know to be widely different from our own. Our sole object, we assert, in effecting the recent reorganization is to raise the standard, increase the efficiency, and enlarge the usefulness, of the institution committed to our charge.

As to the purposes of the Board, it is our intention: (1) to increase the quantity and quality of the agricultural instruction in the course; (2) greatly to strengthen the mathematical department by increasing the quantity and improving the quality of its work; (3) to increase the amount of economic and sociological work in the required course, and to ascertain, if possible, by scientific investigation, the causes of industrial depression and the path to truer individual and general prosperity; (4) to facilitate the opportunities for the instruction and training of women in the lines of domestic economics, by constructing and equipping the much needed and commodious building allowed the College by the last Legislature, and placing at its head an authority of international reputation on questions of domestic economics; (5) to reorganize the force of the Experiment Station, placing in its charge men who will make this branch of the institution more genuinely helpful to the agricultural classes; (6) to encourage the development of individuality, and the capacity and opportunity for students to specialize more closely in agricultural and mechanical lines, (7) to systematize the post-graduate course, and to substitute regular instruction with laboratory and library work, for work largely desultory and undirected, and thus to make the master's degree more truly representative of the work for which it is supposed to stand; and (8) to raise the institution above the level of partisan politics by ensuring to competent men the opportunity to teach in this College, regardless of the ticket they vote.

It remains for this board to state its attitude toward the question of the freedom of science and teaching. We hold the principle of freedom of science equal in rank and importance with the principles of freedom of thought, of speech, of the press, and of the ballot. We note with deep concern the menace to this and other forms of true freedom through the steady aggrandizement of power in the hands of organized wealth. We find alleged economists in cases prostituting their science to the service of their masters, while men of unquestioned attainments, who refuse thus to distort and conceal important truth, and to sell their manhood for bread, are tried for economic heresy, or dismissed on

spurious pretexts, and practically blacklisted; a subservient press concealing, condoning, or applauding the act. The history of Kansas from the days of John Brown until the present demands that this state shall continue the home of freedom; and this board are resolved that in one college, at least, competent men shall be at liberty to investigate, to teach, and to publish, even on economic and social lines, as freely as do their co-laborers in other fields of scientific research.

Book Farming.

There is a very strong prejudice in the minds of many farmers against what they are pleased to call "book farming," agricultural papers. This prejudice is gradually decreasing, and will decrease more rapidly in the future. Successful farmers who decry book farming, and there are, it must be admitted, not a few of such, are among the quickest and readiest to gather up oral hints and suggestions, from their neighbors and acquaintances, and are the closest observers of what is going on on their own farms and the farms of others. They seem to forget that a correct observation does not lose anything of its value by being transferred to paper and that a suggestion is none the worse for being written down and read instead of spoken and heard. Books and newspapers record the observations and experience of others and draw the conclusions of the writer therefrom, and the experience and observation does not suffer on this account.

That there is some reason for the prejudice should be freely admitted. Not every observation, either spoken or written, is correct. Two different persons are very likely to draw different conclusions from the same facts, and it matters not a whit whether they are spoken or written. The main reason, however, for prejudice lies in this, that readers do not always comprehend the real mission and object of the agricultural book or paper. That mission is not to lay down a fixed rule for the guidance of farmers but to enunciate principles which farmers can study until they thoroughly understand them and then apply according to varying conditions and circumstances. In other words, it is not the province of the editor of the paper or the author of the book to hitch and unhitch farmers, nor to pour information into them as you would water into a bucket, but to elucidate and explain the general principles underlying the practice and constituting the science of agriculture; not to tell the farmers how to do this or that, but to show what is to be done, what the end is that should be gained, and then let them make their own application under the varying conditions and circumstances of the farm, the country, and of the season. No man can afford to tell farmers in a general way what to do or what not to do. The fact is the farmers themselves know more about it than does the editor even though he were spending all his time on the farm. He might know what to do on his farm and under his circumstances, but would not necessarily know what was the right thing to be done in the next state, in the next county, or even on the farm adjoining.

It is in this light and with this object in view that agricultural papers should be read; more for the purpose of learning the why and the how; more for the purpose of knowing the underlying principle than the actual practice. When you have explained fully the nature of the seed bed required, for instance of a good crop of wheat, the conditions under which the wheat should be sown, and the kind of wheat adapted to the particular locality, you have about all that can be done. The farmer will know how to get that kind of a seed bed and how to plant it in that way better than any man can tell him.

Books are all right in their place, agricultural papers are invaluable and essential to the highest success, but they should be used as we use any other implement, for the purpose for which they were intended and not for an entirely different purpose. They are mind quickeners rather than hand trainers. Their teachings should be taken for substance of doctrine rather than particular detail. They are not guides leading blind men around and showing them the way, but rather intelligent companions discoursing about everyday interests, suggestive rather than exhaustive, teachers of principles rather than methods. Thus used they are among the best investments that can be made on any farm.—Wallace's Farmer.

Class of '96 Entertained.

One of the most pleasant gatherings of Commencement week was the reception given to the Class of '96, Tuesday evening, at the home of Miss Miriam Swingle, a member of the Class. In response to dainty invitations the Class members assembled at the home of Miss Sue Long, where hacks waited to transport them to the scene of action. The evening was cool and pleasant, and all enjoyed the beauties of sunset, enroute. The guests passed the time on the lawn in games and relating reminiscences. Later in the evening refreshments were served, after which all enjoyed a good social time.

Many members of the Class were temporarily absent from the city and unable to attend. Those who were so fortunate as to be present were: May Bowen, Maggie Carleton, R. K. Farrar, G. W. Finley, Gertrude Havens, H. G. Johnson, Susan Johnson, Miriam Jones, E. C. Joss, Edith Lantz, Sue Long, Mrs. Edda Moore, Clara Newell, Ellen Norton, Mary Pincomb, H. N. Rhodes, A. E. Ridenour, Mary Ridenour, I. A. Robertson, M. G. Spalding, Sadie Stingley, Gertrude Stump, Miriam Swingle, W. E. Thackery.

THE INDUSTRIALIST.

PUBLISHED WEEKLY

BY THE PRINTING DEPARTMENT.

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Note.—Departments are arranged in each of the above lists in alphabetical order of their names.
 *Recent appointment.

Prof. H. M. Cottrell, who has just accepted the chair of agriculture in this College, is a graduate of the Class of 1884, and received the Master's degree in 1887 for special proficiency in agriculture. For many years Mr. Cottrell has been the efficient superintendent of the celebrated Ellerslie Farm of Ex-Vice-President Morton, at Rhinecliff, N. Y., where he had charge of one of the best equipped dairy farms and the largest herd of Guernseys in the United States if not in the world. Prof. Cottrell will bring to his new work an ample preparation and an exceptionally large experience in those lines which are of most importance to Kansas agriculture; and, being a native Kansan, he may be depended upon to put his Western energy into the work which he takes up here. Both the College and the State are to be congratulated upon his appointment.

The opening of a natatorium at Emporia, and the endorsement of the project by the *State Normal Monthly*, naturally suggests the utility of swimming. Tuition in this art, coupled with facilities for its exercise, is accessible quite generally to youth of both sexes abroad, and the swimming-master's training is often obligatory with the boys. Since water occupies three-fourths of the earth's surface, and one cannot travel far without crossing river, lake, or sea, the requirement, for safety's sake, would seem to be a reasonable one in the preparation for life's duties. Are not the lives of American boys and girls as well worth saving as those upon the other side, and why should such a valuable accomplishment be left to the haphazard chance of private instruction?

In the proceedings of the Board of Regents will be found the changes in the course of study recently authorized. The attempt will be made to make the new course operative as soon as possible. Care, however, will be taken that no hardship ensues to students. To this end substitutions of studies will in cases be necessary, especially in assigning work to the members of the coming Fourth-year Class. The opportunity afforded for choice of courses in the fourth year will, it is believed, be appreciated by many students. Not the least of the resulting gains is the opportunity to attain greater proficiency in the line selected than has heretofore been possible.

A Hint of the Future.

As readers of the *INDUSTRIALIST* are aware, the duties of editor-in-chief of this paper devolve upon the President of the College. The administration of the institution having changed on the 1st instant, the *INDUSTRIALIST* now appears for the first time under its new management. The future policy of the institution is outlined in the statement of the Board of Regents which appears on the first page; the points therein briefly stated will be elaborated in future issues as occasion may require.

The policy of the *INDUSTRIALIST* itself will also undergo some modifications, to be indicated later. This paper will, however, still stand as the organ of the institution and the exponent of its policy; if it can be made more truly serviceable to the agricultural and industrial classes who stagger beneath the burdens of our present industrial system; the object of the present management will have been attained.

Shall the Facts Be Known?

On another page will be found an article entitled "The Present Condition of the Farmer." This article appeared last April in the staid, conservative, and eminently respectable *Christian Register* of Boston. Shortly afterward the present writer submitted, in lieu of editorial matter, then overdue, the article in question for publication in the *INDUSTRIALIST*. Inasmuch as no article could well bear more directly upon the welfare of the agricultural classes, in whose interest, largely, the Agricultural College is maintained; and inasmuch, further, as the columns of the *INDUSTRIALIST* have in the past been filled, in large measure, with clippings from farm papers, the writer believed that such matter might properly appear in such a paper as this. The article, however, failed to see the light.

We leave it for an intelligent public to determine whether such facts may properly appear in a religious paper but not in the organ of an agricultural college; and whether agricultural data which may safely be spread before a Massachusetts constituency may not also be submitted to Kansas readers.

In buying seed of any kind it is always best to obtain it as near home as possible. This is not only for the purpose of saving expense in transportation, but it is better for the reason that nearly all plants adapt themselves to the environments or conditions of the locality in which they are grown, and a too radical change from these conditions will often bring disappointment.—*Ex.*

Good Roads Necessary.

There seems to have been awakened among American farmers a spirit of competition to supply both home and foreign markets. We wish to compete with Holland and Belgium for the market of butter and cheese in the United Kingdom of Britain, and with Germany and France in supplying our own market with sugar. And when we take into consideration only our resources for producing butter and milk and cheese and now the facilities with which we can raise the sugar beet, we can easily convince ourselves that we ought not only to supply foreign markets with butter and cheese and meat too, besides feeding all Europe with our wheat and corn; but that, after doing all this, we can raise our own beets and make our own sugar. It is easy to demonstrate this on paper, but it does not always foot up according to our calculations.

We are apt to leave out of our count some of the things which might be grouped under the general head of "getting ready." We forget often the preparation necessary, and when we attempt to put our scheme into practice, we find we are not quite ready. These general remarks have already had extensive applications in our desire and attempt to have everything our own way.

The sugar beet fever has spread all over our country and we believe that in the end it will bring a change in the amount of sugar imported from Germany and France; but we must not overlook the fact that they have advantages over us which we may overlook, and which belong to some of the things which we must get ready.

Good roads have been so often urged upon the attention of farmers by persons interested in them, and who know their value, that the subject seems an old song.

But if we are to raise and haul to the manufacturing plants, beets for sugar, and haul the pulp back to feed our cattle, as we have all calculated to do, the bad roads like Banquo's ghost will always be on hand just when we do not want to see them. Something will happen that we did not put into our calculations.

It will be interesting to compare the cost of hauling farm products to market in foreign countries, as furnished by the consuls of the United States in response to a circular issued by the agricultural department at Washington, D. C. A condensed statement of their reports will be found in circular No. 27, lately issued by this department.

Two things will be especially noted in these reports. First, that the roads in all the "principalities" of Europe are about as good as they can be made; where there happen to be hills, the grades are reduced on the roads much in use, so as not to interfere with heavy hauling. And as a result of these good roads much more of every farm product can be hauled at a single load than with us. A team with two horses will haul sometimes as much as five tons—three tons being a moderate load. One thousand kilograms, which is something more than our ton, is considered a small load for one horse to haul fifteen miles and return with load in the same day. The rates of hauling are therefore much lower than in this country on account of their good roads. The cost per mile per ton, rates at from 4½ to 11.8 cents; the lower rates for the heavy loads.

Comparing these rates with the cost of hauling over most of our roads, in the regions where the sugar beet is expected to be raised, we can readily see that in this respect the foreigners have much the advantage of us, and so indeed in handling all their marketing. Their better roads enable them to do their work at less cost. This is one item of expense which must be reduced if we would compete successfully with them in either dairy products or in the manufacture of sugar.

It is perhaps too much to say that good roads and civilization advance with equal step; but if we look a little into the history of England and of our own ancestors, we will be convinced that without good roads civilization must move with tardy step. Macaulay in his History of England says:

"Of all inventions, the alphabet and the printing press alone excepted, those inventions which abridge distances, have done most for civilization of our species. Every improvement of the means of locomotion benefits mankind, morally and intellectually, as well as materially, and not only facilitates the interchange of the various productions of nature and art, but tends to remove national and provincial antipathies, and to bind together all the branches of the human family."

In this he has summed up almost all the elements of civilization. The graphic descriptions which he gives of some of the roads in England in the latter part of the seventeenth century, when a viceroy on his road to Ireland spent five hours in traveling fourteen miles, and was forced to walk most of the way, whilst his lady was "carried in a litter," cannot fail to be understood by some of our good farmers, dwellers on our prairies and black lands of our states. It is time we get out of the mud and become civilized, or we will never save our \$100,000,000 by raising our own sugar or compete successfully in the European markets with our dairy and live stock products.

We are, however, encouraged in the hope that this will soon be done, by another circular, No. 25, lately issued, in which we have an account of the efforts of our enterprising farmers of the Hoosier state to make good and lasting roads under most unfavorable circumstances. They have entered most earnestly upon their work and will soon solve the problem for themselves.—*Farm News.*

For Sale.

A very desirable home for those having children to educate or who wish to board students, as it adjoins the State Agricultural College grounds. For particulars, address P.O. Box 757, Manhattan, Kansas.

FACTS ABOUT THE ALUMNI ASSOCIATION.

BY GEORGE L. CLOTHIER, CLASS OF '92.

AS an alumnus of the Kansas State Agricultural College, I wish to state some facts for the information of others of my brethren who are not situated in a position to know what has taken place in Manhattan during the past few months. As an introduction to my remarks I wish to make some statements concerning the organization known as the Alumni Association. The constitution of this body, an antiquated document which not one member in ten has ever seen, provides for the nomination of officers by a committee appointed by the outgoing president. The acceptance of the report of the committee elects the whole corps of officers, and it has always been impossible to amend or change the report so as to give the members of the association anything like a free choice. In other words, the ballot, the fairest means ever devised for the expression of public opinion, has been banished from the Alumni Association for many years. Of course any person who understands the working of this system can see that it affords a most excellent opportunity for ringsters who once get into office to perpetuate their power. Each retiring president may dictate his own successor, and likewise may dictate who shall hold every office in the organization.

The constitution also makes of the resident alumni a special committee to conduct the business of the association necessary to be carried on at irregular times between the annual meetings. It has often been asserted within the past few years that the resident alumni absolutely control the association, and that a ring within this resident contingent, who are friends and relatives of some members of the Faculty, dictate the policy of the association. So strong was this feeling two years ago last winter, when the resident alumni were attempting to secure the appointment of a member of the association upon the Board of Regents, that a considerable minority of the resident alumni put forward a candidate for the position who was avowedly not a friend to the Faculty. The agitation at that time failed to accomplish anything but negative results, for the petitions of both parties to the controversy were ignored, and Governor Morrill appointed partisan politicians upon the board, as with rare exceptions had been the custom for a quarter of a century.

At the annual meeting on June 10, this year, the local organization seems to have had things its own way again, for every officer of the association for the coming year is a resident of Manhattan or the immediate vicinity. On this occasion a set of resolutions was passed without debate by a clique that represented the sentiments of the local organization. The text of these resolutions is found in the *Topeka Capital* for June 12, on page three, column one; it is also found in the *INDUSTRIALIST* of June 14, 1897. The crowd that favored the resolutions waited until the members of the Class of '97 had retired from the room to attend a special Class meeting of their own, when the resolutions were sprung and passed. The Class of '97 contained more than fifty of the Alumni in attendance at this Commencement. Some parts of these resolutions are very good, and I do not wish to be understood as being opposed to all that they contain. The most objectionable part is the statement of an absolute falsehood, in the following words:

By the unusual proceedings of the recent Legislature and the present Board of Regents, this policy has been overthrown: officers and employees of admitted efficiency have been dismissed; and a policy has been mapped out which makes party fealty the primary test for purely educational and scientific positions.

A number of good people present who voted for the resolutions did not notice or understand this false statement. The assertion that party fealty is made the primary test for educational and scientific positions is a reflection upon the honor of every Republican member of the Faculty that has been retained by the Board. It also falsely reflects discredit upon the competence of those retained. Out of the thirteen regular members of the Faculty reemployed, seven are Republican voters, and four are women who would also vote the same ticket if they had suffrage. It was not even hinted to any one of these that the breaking of party ties was necessary to reemployment. On the contrary, the Board seems to have desired to have all political parties, if possible, represented upon the Faculty. These men were retained because the Board believed them to be eminently fitted to fill their respective positions. Of the eleven whose places have been declared vacant, three resigned. Of the eight who were notified that their services were not needed, I believe three claim to be Democrats. Those parts of the resolutions that express pride in our noble alma mater, I heartily endorse. The words of praise for President Fairchild were well spoken, expressing gratitude for the good received from his instruction; but the words of condemnation of the Board of Regents were wholly out of place in a set of resolutions pretending to emanate from the Alumni Association of the Kansas State Agricultural College. The enactment into law of the principles underlying these harsh words of censure would petrify the institution. It would prevent any change in the personnel of the Faculty. It would sacrifice the whole College to the view that the professors have vested rights in life tenure of position. No progress, no growth could be possible with such a rule in force. No new thought could be introduced into the institution, except by the addition of new departments.

These resolutions also contain the insinuation that the College has never been in the hands of politicians until now. History brands this insinuation as false. When an undergraduate student some seven or eight years ago, I heard one of the most influential regents that the institution has ever had make the extraordinary assertion in a speech to the whole body of students assembled in the College chapel that he regarded the rapid growth of the College as due to

the Republican party. I wish to state further to the public that I believe it was no chance or accident that caused seventeen out of nineteen voters in the Faculty to vote for the gold standard last November. I believe that for twenty-five years past, the Regents when possible have selected candidates for vacancies in the Faculty with a view to their political opinions. That politics has controlled the institution from its birth even down to the present time, I have not the slightest doubt. The College could not be a State institution and be free from political control, tho it might be free from partisan control. I cannot see how it can be made non-partisan, and yet contain a Faculty made up almost exclusively of members of a single political party. The only way to make it non-partisan is to have as nearly as possible a proportional representation of all political parties upon the Faculty.

The resolution that pledges the Alumni to work for the divorcement of our State institutions from political influence and control is contradicted in the next succeeding resolution, which "urges the appointment of one or more alumni to the Board of Regents." These alumni that desire to become members of the Board of Regents thus signify their willingness to take part in the very political control which they denounce.

Had I been a member of the Board, I should not have voted to discharge all the members of the Faculty that have been dismissed; and yet, as a true alumnus, I cannot censure the Board for dismissing my personal friends if the positions are filled by abler men than those displaced. So far, every chair made vacant by dismissal or resignation, and already filled, has been filled by an appointee possessing superior credentials to those of his or her predecessor. Professors of national, and even international, reputation have been selected; and alma mater is to be in the future a healthy, vigorous organism, capable of doing a mighty work for the cause of young manhood and womanhood.

The Second June Meeting of the Board of Regents.

The Board met at 3:30 p.m. on June 30, 1897, with all the members present except Regent Kelley.

Regent Limbocker presented bills for advertising for bids on the new building, and expenses of two members in attending meeting of committees. Bills were referred to finance committee.

Regent Hudson, loan-commissioner-elect, presented bond for \$5000.

Regent Daughters moved that after the fiscal year closing June 30, 1898, the bond of loan commissioner be fixed at \$10,000. Carried.

On motion of Regent Limbocker, President Fairchild transferred to President-elect Will the keys to the office of the president and the duties of secretary of the board.

The College Lyric was referred to Pres. Will and Professors Walters and Brown, to provide for publication.

Carried that any member of the Faculty shall be entitled to a vacation of two weeks before the beginning of the fall term, time to be indicated by the president; and that any other employee, assistant, or foreman, not a laborer by the week, day, or hour, be entitled to a vacation of two weeks, the time of such vacation to be designated by the head of the department.

Mr. M. A. Carleton, of the United States Department of Agriculture, was permitted to continue his experiments relative to the physiology and pathology of the wheat plant on College land.

The president of the College was authorized to extend an invitation to citizens of Kansas to avail themselves of the privileges and opportunities of this College.

Ex-President Fairchild, on motion of Regent Hudson, addressed the board on matters of common interest. A vote of thanks was extended to him.

Carried that in case no quorum be present at the next meeting the President of the College be authorized to take such measures as may be necessary for the publication of the catalogue, including the new course of study.

The appointment of a superintendent of sewing was deferred until the next meeting.

Supt. Thompson's resignation, to take effect at once, was accepted.

Carried, that in preparing the catalogue the student roster for the past year distinguish between preparatory students and College students in full standing.

The following report was presented and adopted:

To the Board of Regents of the Kansas State Agricultural College:
Your committee on printing *Students' Herald* and the future publication of the *INDUSTRIALIST* respectfully recommend: (1) That the request of the stockholders of the *Students' Herald* to print and publish their paper each week upon the College press, under the direction and supervision of the superintendent of printing, be granted; (2) That the question of the proposed change of form and frequency of publication of the *INDUSTRIALIST* be deferred until a subsequent meeting, and that at least two or more vacation editions of the *INDUSTRIALIST* be printed and published under the direction of the president and superintendent of printing.

T. J. HUDSON,
CHAS. S. DAVIS,
C. B. HOFFMAN, } Committee.

July 1, '97.
Prof. Silas C. Mason was engaged for the months of July and August to be professor of horticulture and superintendent of the orchards and gardens, at a monthly salary of \$120.84. Prof. Mason appeared before the board and accepted this offer.

Mr. C. W. Pape was appointed assistant curator of the museum for two months at \$25 a month.

F. A. Marlatt was employed for two months, commencing July 1, at \$60 a month, as entomological assistant in the experiment station.

The statement relative to the recent reorganization of the Kansas State Agricultural College [published elsewhere] was adopted and ordered published.

The following recommendations of the committee on farm were adopted: (1) That Hereford bull be sold

to Cross of Emporia or any other purchaser for \$500; (2) that the Shorthorn bull be exchanged or sold on the best practicable terms; (3) that the approaches to the bridge be put in repair; (4) that a filter to cost not more than \$10, be allowed at the farm house.

An appropriation, not exceeding \$19, was allowed to the superintendent of printing for fly screens and re-calculating.

The estimate of Supt. Walters for Domestic Science Hall, amounting to \$1083.20, was allowed, and a voucher on the appropriation was ordered drawn.

The following list of appointments was agreed upon: [See p. 162.]

The following Faculty recommendations were adopted:

1. That such required industrials as have been compensated for be discontinued.
2. That the words "farm and garden" be in each term inserted as the name of the industrial in the farmers' course.
3. That the term of industrial in the shops, heretofore required of the first-year students, be abolished.

The following changes in the course of study were authorized:

In the winter term of the second-year, one-half term of mineralogy is displaced by one-half term of United States history.

The descriptive geometry of the spring term, second year, goes into the fall term of the third-year for ten weeks; the trigonometry and surveying of the fall term, third year, taking the place of the descriptive geometry.

Anatomy and physiology, third year, fall term, are combined with zoology for the period of fourteen weeks; zoology in the winter term of the third year is supplanted by geology, from the spring term of the fourth year.

Map drawing, winter term, third year, reads "Drafting, 3." The course in economic science, spring term, third year, reads, "Principles of Economic Science."

Agricultural chemistry, spring term, third year, is made alternative with analytical chemistry.

The industrial in the same term is to consist of drafting practice, without home work.

The name of the elective course in German botany was altered to read, "German Reading."

The fourth-year's work is to stand as follows:

FOURTH YEAR.

[Numerals denote number of class hours per week.]

FARMERS' COURSE.	WOMEN'S COURSE.	MECHANICS' COURSE.
<i>Fall term, 14 weeks.</i>	<i>Fall term, 14 weeks.</i>	<i>Fall term, 14 weeks.</i>
Physics and Meteorology, 5. Economic and Social Problems, 5. Agriculture, 5. Drafting, 4. Rhetoricals, 1. Farm and Garden Industrial, 5. Military Drill, optional.	Physics and Meteorology, 5. Economic and Social Problems, 5. Hygiene, 5. Drawing, 4. Rhetoricals, 1. Industrial, 5.	Physics and Meteorology, 5. Economic and Social Problems, 5. Calculus, 5. Materials of Construction, 4. Rhetoricals, 1. Industrial, 5. Military Drill, optional.
<i>Winter term, 12 wks.</i>	<i>Winter term, 12 wks.</i>	<i>Winter term, 12 wks.</i>
Physics, one-half term, 5. Industrial History, one-half term, 5. Psychology and Logic, 5. English Literature, 5. Botany, 2. Laboratory, 5. Rhetoricals, 1. Farm and Garden Industrial, 5. Military Drill, optional.	Physics, one-half term, 5. Industrial History, one-half term, 5. Psychology and Logic, 5. English Literature, 5. Botany, 2. Laboratory, 5. Rhetoricals, 1. Industrial, 5.	Physics, one-half term, 5. Industrial History, one-half term, 5. Psychology and Logic, 5. English Literature, 5. Advanced Descriptive Geometry, 2. Problems, 5. Rhetoricals, 1. Industrial, 5. Military Drill, optional.
<i>Spring term, 11 wks.</i>	<i>Spring term, 11 wks.</i>	<i>Spring term, 11 wks.</i>
Veterinary Science, 5. Finance, 5. Agriculture, 5. Rhetoricals, 1. Farm and Garden Industrial, 5. Military Drill, optional.	Floriculture, 5. Finance, 5. Literature, 5. Rhetoricals, 1. Industrial, 5.	Machine Designing, 5. Finance, 5. Mechanics of Machinery, 5. Rhetoricals, 1. Industrial, 5. Military Drill, optional.

N. B. The following options will be allowed in the spring term of the fourth year:— Horticulture against Agriculture; Architectural Designing and Architecture against Machine Designing and Mechanics of Machinery. Women may elect from the Farmers' or Mechanics' Course.

Moved that a course of lectures in social and economic science be given annually in the College chapel, and that students be graded on the same. Carried.

The following changes in the requirements for master's degree were agreed upon:

Pages 34 and 35 in the last catalogue are altered to read as follows:

1. Upon candidates who have taken the five-years "Extended Course," or its equivalent, the degree may be conferred at the end of a one-year post-graduate course. These courses must be outlined by, or be acceptable to, the Faculty.

2. Each candidate shall furnish evidence satisfactory to the Faculty of proficiency in one of the following arts: Agriculture, Horticulture, Engineering, Architecture, Designing, Domestic Science; and in a science or group of sciences related thereto. Either a science or an art may constitute the student's major study. In either case his studies are expected to bear upon the distinctive work of the institution.

3. Each candidate must present for the consideration of the Faculty a satisfactory thesis involving original research in the line of his major study, and shall deposit a perfect copy in the College library.

In the afternoon of July 2, a recess was taken until 8 o'clock p. m. At 8 o'clock p. m. the Board met and took a recess until 9 o'clock a. m., Saturday, July 3.

Saturday, July 3, the Board met at 9 o'clock a. m. No quorum being present, a recess was taken until 3 o'clock p. m., Monday, July 5.

On Monday, July 5, the Board met. No quorum being present, a recess was taken until 9 o'clock Tuesday, July 6.

On Tuesday, July 6, the Board met at 9 o'clock. No quorum being present, on motion the Board adjourned until September 1, subject to call of a special meeting pursuant to the resolution of July 1, last, which reads as follows:

Resolved, That the next regular meeting of this Board be held on the first day of September next, at 3:30 p. m.; and that special meetings of this Board may be called by the President, or upon request of three members to the Secretary of the Board, who shall, upon such request, give each member of the Board notice by letter not less than five days prior to the meeting.

SOME OF THE NEW APPOINTEES.

Frank Parsons.

Prof. Frank Parsons, recently elected to the chair of history and political science in this institution, prepared for college at Aaron Academy, near Mount Holly, N. J., giving special attention to Latin and mathematics. Later he took the mathematical and engineering course at Cornell where he was captain of one of the four divisions into which the class was organized for practical work. He taught for many weeks a number of fellow students to whom the higher mathematics were an unhappy world. Mathematics came very easy to him, and he was able to add a great deal of science, history, and philosophy to the regular course he was taking. He graduated with honors in 1873, in his eighteenth year.

Mr. Parsons next obtained a position on the engineering staff of a new railway; but a panic exploded the company, and he began teaching in Southbridge, Mass. Starting with a district school, he was soon transferred and taught mathematics, French, history, English analysis, and elocution in the high school. He had good success with all, and with geometry extraordinary success, his pupils obtaining such a grasp of the subject that many of them were able to solve with ease any geometric problem that could be presented involving the principles they had studied. It was a standing order of examination day that any visitor was welcome to give the class in geometry new problems from any source, and the class never failed to resolve them, the difficult questions were frequently asked which were entirely new to the pupils. In history he succeeded in securing wide and enthusiastic collateral reading, by means of debates upon the moral, political, and scientific questions that naturally arise in connection with all the chief events of history.

A law having been passed in Massachusetts requiring the teaching of drawing in the public schools, it became necessary for Mr. Parsons to manage a drawing department in the Normal Art School. Preparing himself in a single summer for this work, he took charge of the schools, including the teachers and 1400 pupils, and conducted the work in such a way that novelty, freshness, personal choice, and untrammelled individual development were perpetual elements in it; and before the year was out, the enthusiasm became so great that the teachers complained to the board that it was impossible in many instances to get students to give proper attention to their other studies, because of their infatuation with drawing.

In consequence of some able speeches in a flourishing literary society which Mr. Parsons had organized, Judge Bartholomew, the leading lawyer of the place, urged him to study law, and offered him every advantage. The suggestion was acted upon. A few weeks later Mr. Parsons received the offer of a professorship of elocution in Swarthmore College; but preferring his legal studies, he declined this offer. He read through the usual three years course in about one year, and was admitted to the bar. Mr. Parsons was for six months chief clerk with a leading Boston firm of lawyers. He then became a text writer for Little, Brown & Co., the great legal publishers, and opened an office of his own. The high merit of his published works brought him a lectureship in the Boston University Law School, about six years ago. For three years he lectured in Boston on English literature, and at the request of Little, Brown & Co., part of the lectures were gathered into book form and published by them, under the title of "The World's Best Books." The book received high commendation, and sold well. This publication brought him an offer from a New York firm desiring him to draw up a plan for a library of the world's best books, and write a preface for each issue. This offer he accepted. When studying Blackstone Mr. Parsons made up his mind to try to write a book upon modern law as clear and philosophical as were Blackstone's lectures in relation to the law of his day. This book, to be entitled "The Philosophy of Law," Mr. Parsons has been engaged on at intervals ever since, and hopes in time to publish. The character of his other writings, coupled with that of so substantial a work as "Parsons on Contracts," a production of his father, shows what may be expected from this book when it appears.

While in college Mr. Parsons studied political economy, but found it exceedingly unsatisfactory, inasmuch as economic writers were satisfied with describing (and not always correctly) the laws of industry as it is, making no effort to discover the laws of industry as it should be. No effort was then made to coördinate economic science with ethics and the rest of the sociological structure. This defect in

economic literature Mr. Parsons resolved to attempt to remedy. The result after some years was his celebrated book, "Our Country's Need," the manuscript of which was submitted to several friends, among others to Rev. Phillips Brooks, calling from that distinguished divine the following commendation:

233 CLARENDON ST., BOSTON, April 9, 1897.

Dear Mr. Parsons:

I thank you for your letter. I count it a great honor that you should wish me to undertake the duty of writing the introduction to your book. I am sure there are others among your friends who could render the service far better than I. If you will let me have your manuscript again when you have put it into its final form, it will be a pleasure to express my admiration for the great work you have been engaged upon so long. I feel that "Our Country's Need" is destined to be an epoch-making book. It builds political economy on true foundations. It brings all rays to the focus of soul-culture. I am in heartiest sympathy with your philosophy of "Mutualism." Our conversations about it have been a delight to me. The "Law of Development" and the "Historic Parallel" are worthy, I think, of the emphasis you give them. All your underlying principles I fully accept. They are simply "brother love and justice put in practice," as you say; and how can a minister withhold his support from that?

Faithfully your friend,

PHILLIPS BROOKS.

Professor Parson's "Philosophy of Mutualism," which appeared in the *Arena* in May, 1894, has attracted wide attention. His series of articles written for the *Arena* magazine within the past two years exhibits extraordinary strength, depth of research, and fearlessness in the expression of views on questions of vital moment. These articles deal with questions of monopoly, transportation, electric light, telegraph, telephone, &c., &c. Many of them have been republished in hundreds of newspapers, some of them also in the United States Senate documents, and have received high commendation from such men as Prof. Richard T. Ely, Judge Walter Clark, Prof. Bemis, and Henry Lloyd. These articles brought to him requests to write some chapters in one of the books of Prof. Ely's series on economic and sociological subjects, and to supply several sections of the *Cyclopedia of Social Reform* soon to be issued in New York. Besides his writing Prof. Parsons has delivered hundreds of lectures in the last few years on political and economic subjects, and had he possessed the time and strength to accept all the invitations that poured in upon him, he could have delivered hundreds more. He is now a lecturer in the Boston University School of Law, which position he will continue to hold while teaching here. He is lecturer for the National Direct Legislation League, chairman of the publication department of the Massachusetts Citizens' Committee on Municipal ownership, dean of the educational department of the National B. C. C., is on the list of contributors to five magazines, &c.

Following are some statements relative to Prof. Parsons, which in view of his wide reputation it would seem almost superfluous to publish. However, for those who have known him simply through his legal and economic writings, they will serve to bring out, in a measure, the great versatility of his character and attainments.

MORRISTOWN SEMINARY, MORRISTOWN, N. J., Nov. 28, 1896.
It is a pleasure to say a word in regard to Prof. Parsons, under whose instruction it was my good fortune to be during my college preparation days. While I was studying under him in Southbridge I felt that he was a rare teacher as regards clearness and thoroughness; but not until I pursued my mathematical studies at Vassar and began to teach algebra, geometry, and trigonometry at Providence, R. I., did I fully realize the benefit I had gained from his original and inspiring methods of teaching.

Very truly yours,

LOUISE L. NEWELL.

CORNELL UNIVERSITY, ITHACA, N. Y., June 28, 1893.

This is to certify that Mr. Frank Parsons, a graduate of our course in civil engineering, is a man of superior abilities. He has a working use of the principles of mechanics, and an original power as a mathematician rarely found in engineers. He has applied his knowledge to various practical projects with success. He understands thoroughly and uses accurately the engineer's transit, level and other instruments. He is an indefatigable worker with hand and brain, and from an acquaintance of several years, I take pleasure in recommending him as in every way capable and trustworthy.

H. T. EDDY, C. E., Ph. D.

In charge of engineering department, Cornell University.

SOUTHBRIDGE, MASS., Oct. 19, 1881.

Mr. Frank Parsons has had charge of the drawing in the schools of this town for nearly four years. He first gave lessons in the intermediate and high school, at the same time instructing the teachers in freehand, perspective, and mechanical drawing. The last year he gave lessons in pencil, crayon, oil, and water coloring in the high school, and superintended the entire work in all of the schools. We feel that Mr. Parsons has done a great work for us. He not only possesses ability in a large degree, but has rare tact to make his pupils enthusiastic in their work, and thereby secure grand results. . . . I can not express too strongly the result of his labors here. We had become almost discouraged until relieved so successfully by him. Evidences of what he has done may be seen in the homes of the pupils, where many beautiful pictures adorn the walls. . . .

E. M. PHILLIPS,

Chairman of School Committee.

WORCESTER, MASS., Oct. 13, 1881.

I regard Mr. Parsons as a man of very exceptionally clear and strong intelligence, . . . and considering the time he has devoted to the subject, of rare knowledge of the science of law. He has recently been admitted to our bar with the very highest approval of our board of examiners, of which I have been for years a member. The board were unanimous in the opinion that no man has appeared before them who has displayed a more perfect grasp of the subject.

F. P. GOULDING.

The following from Professor Bemis, before either of the gentlemen knew they would ever be associated as teachers in an institution of learning, will be of interest:

BUREAU OF LABOR STATISTICS OF ILLINOIS, SPRINGFIELD, ILL., Jan. 10, 1897.

To whom it may Concern:

I am very glad to take this opportunity to testify to my strong belief in the ability of Professor Frank Parsons, of the Boston Law School, to give college courses or to do scientific work

anywhere on the great economic questions of the age. The research, of a most extraordinary degree of thoroughness, shown in his many recent articles in the *Arena*, can be easily seen by anyone. His work at the law school others can describe. His great lucidity and other teaching qualities came under my own personal observation and that of other more prominent men during a series of lectures that we heard him give last summer. I believe that any liberal institution, desirous of keeping abreast of the latest researches along the lines to which Professor Parsons has given special attention for many years, could not do better than extend a call to him. Very Respectfully,

EDWARD W. BEMIS,

Special agent of the Illinois Bureau of Labor Statistics, and formerly associate professor of economics at the University of Chicago.

The Medical World, C. F. TAYLOR, M. D., Editor and Publisher, 1520 Chestnut St., PHILADELPHIA, PA.

LAKE GEORGE, N. Y., JUNE, 30, 1897.

Prof. Thos. E. Will:

Yours of June 23 forwarded to me here. I regard Prof. Frank Parsons as a scholar of a very high order. As an investigator he has done more than any one man in my knowledge to bring out facts and figures showing the relation of great corporations, as the telegraph, railroads, &c., to the general public and the public interests. I have recently engaged him to make some constitutional and legal investigations concerning the rights of cities in the various states. This has involved going over many thousands of pages of printed matter, which he has done with remarkable facility, rapidity, and accuracy. I know of no one in this country so well equipped for this kind of investigation as he. An investigator is seldom a good teacher. In this respect Prof. Parsons is a striking exception. I have heard him lecture before various kinds of audiences select and general, large and small, and I have never known him to miscalculate as to the best way of "hitting the mark." As a lecturer to any kind of an audience he is a teacher, and holds the interest and reaches the understanding of his hearers. As a man—there is no man in my knowledge in whose honor and integrity I have greater confidence. He has the courage of truth and conviction, and the conscience of the most sensitive woman. I could say much more to his credit, but he is one of the very few men that I have ever known of whom I know absolutely nothing to his discredit—and I know him intimately.

Very sincerely,

C. F. TAYLOR.

SOUTHBRIDGE, JUNE 29, 1897.

I have known Mr. Parsons for many years intimately and well. He came to this place soon after his graduation, and became a teacher in our public schools. He was an accurate scholar, and was always inclined to go to the root of everything he pursued. He had a wonderful memory, and mastered principles with ease, and did not forget them. His examination for membership of the bar was more satisfactory than any person's who has been admitted here during my practice of nearly forty years. . . . His teaching was successful and eminently satisfactory here. He has sustained well his reputation, as a lecturer for seven years in the Law School of the Boston University. He has written several law books that are generally regarded highly by the profession. They are models in analysis and methods of arrangement of matter for finding quickly the topics and cases the lawyer wishes to find for use. His references to cases are always accurate, and only apt precedents are cited. . . . I call him an able and learned man, and an accomplished scholar, who has thus far made no failures in his work.

[Judge] A. J. BARTHOLOMEW.

FORT EDWARD, N. Y., JULY 3, 1897.

I regard Prof. Frank Parsons as one of the most valuable men of his sort of the day. I do not know anyone holding his advanced views who has his general theories more symmetrically developed, or who is better capable of filling the position of a teacher of economics, from the modern standpoint, in your institution. I sincerely hope that you will be able to arrange for him to give at least a portion of his time to your progressive institution. . . .

BENJAMIN FAY MILLS.

WRITINGS BY PROFESSOR FRANK PARSONS.

The Wanamaker Conference; or John Wanamaker and the Nationalists.

The Philosophy of Mutualism.

Government and the Law of equal Freedom.

Charity. (In "Today.")

The Public Ownership of Monopolies.

Course in the New Political Economy. (Syllabus)

Public Ownership of Street Railways.

Proportional Representation. (In Lincoln Review.)

Street railway circulars for Citizens' Committee.

The Telegraph Monopoly.

Our Country's Need.

Electric Lighting. (In the *Arena*, June-December, 1895.)The People's Highways. (In the *Arena*, April, May, 1895.)Free Silver, the Issue of 1896. (In the *Arena*, November, 1896.)Free Silver vs. Free Gold. (In the *Arena*, October, 1896.)Compulsory Arbitration. (In the *Arena*, March, 1897.)

Mrs. Helen Campbell.

[Sketch by Hester M. Poole in *The American Kitchen Magazine* (Boston), for February, 1897. Republished by permission.]

Could Mary Wollstonecraft or Margaret Fuller revisit earth how great would be the satisfaction of either when observing the "New Woman," and not alone because of her attainments but also on account of the aspirations and struggles from which they spring.

The real woman of today is so much more than the former conception of what she ought to be that one can hardly harmonize the two. She is all of her predecessor and more. No doll's dress can be stretched to fit an adult, neither can the narrow, pinched, sentimental creature of the last age fill the ideal of the present century. Yet, with social evolution expanding the minds of all classes, it is good to know that the new woman has not less than her forebear, but more. In the affectional nature she has developed as well as in the wisdom that should regulate and control it.

All this comes naturally to the writer who would give even a brief sketch of Mrs. Helen Campbell. Large of heart as of brain, interested in art, science, literature, and in all philanthropic movements that might benefit humanity, Mrs. Campbell is a living bundle of immense activities. Not alone in two or three directions is she a reader, thinker, and actor. Her tentacles are so quiveringly alive to whatever might possibly conduce to human development that one can hardly define their scope or limit.

Mrs. Campbell was born of good old Scotch stock in Lockport, N. Y., in 1839. Her father, Homer M. Stuart, was a well known lawyer of New York. By reading and taste the subject of our sketch is cosmopolitan and by the exigencies of life she has traveled widely and attained broad experience and a sympathetic interest in all conditions of human life. That she intuitively penetrates to the heart, understands motives and exercises unwearied charity, is felt by all who read her books.

A scholar from the cradle, quick to feel humor and pathos, gifted with that fine sense of color and form that endows the artist, possessing a vivid imagination, great dramatic power, and blessed with abundant vitality and perseverance, it is natural that Mrs. Campbell should seek expression in writing. Through a great love for children, her efforts first saw the light in stories for *Our Young Folks*, *The*

Riverside Magazine and other juvenile periodicals. Their power gained quick recognition. Gradually the Ainslee Series saw the light in book form. At the time they took the lead in the affections of the children and are still popular. They appeared in England in reprint. To write for a larger and more sedate public was only a step, and so appeared "His Grandmother," Mrs. Campbell's first novel which was issued anonymously. The success of this emboldened her to follow it by "Unto the Third and Fourth Generation," a study in heredity. This was followed by "Six Sinners," a child's story, a book which won for its author a prize of \$500.

In 1877 her first serious studies of life among the poor and workers in general began in the study of medicine with special reference to food and its relations to life. Called to Raleigh, N. C., in 1878, she organized there the first Southern Cooking School, teaching also in the Deaf and Dumb Institute, and meeting a cordial and hearty support from many interested in better knowledge. In 1880 she was called to Washington, D. C., where Mrs. Woodbury had long wished to form a cooking school and diet kitchen, and began the work which still continues. Mrs. Campbell's bent was too distinctively literary to permit continuance in this work, but she had gained invaluable experience which has been used in many ways. For her Southern pupils she wrote "The Easiest way in Housekeeping and Cooking," as a text book adapted to those entirely ignorant of even the first principles of the housekeeper's work. Compact, sententious, and covering much ground, it has had a large sale, and was revised and reissued in 1893.

In the winter of 1880, Mrs. Campbell came to Philadelphia, at the solicitation of Mr. Tourgee, to take charge of the literary department of *The Continent* and also to edit the household section. In both she made a brilliant success. She wrote "Under the Green Apple Boughs," a popular novel, followed by "The What-to-do Club." She also prepared for the press "The American Girls' Handbook of Work and Play," "Mrs. Herndon's Income" which first appeared as a serial in *The Christian Union*, a work of singular power and beauty, thrilled its readers with the light of romance and its insight into all forms of existence. This book, which lifted its writer into the front rank of novelists, should be read by all who love their fellows. The editor of the *New York Tribune*, attracted by her exposition of the condition of the working women of that city, induced Mrs. Campbell to make a study of that large, oppressed class. A resulting series of papers from her pen entitled "The Prisoners of Poverty" attracted universal interest to a subject that had hitherto been regarded with astonishing lethargy.

Mrs. Campbell next went abroad to study the conditions of working people in London, Paris, Italy, and Germany. The fruits of her researches appeared in "Prisoners of Poverty Abroad," "In Foreign Kitchens," in a very different vein, soon followed. It should be stated that previous to these works, our author had issued a delightful book upon Philadelphia, "A Sylvan City," "Anne Bradstreet and her Time," an historical study, and soon after "Miss Melinda's Opportunity" and "Roger Berkley's Probation," tales both practical and suggestive. In 1890 appeared a monograph upon "Woman Wage Earners" which received a prize from The American Economic Association. Then came "Darkness and Daylight in New York," followed by "Dr. Martha Scarborough," a book which has won many friends.

In 1893 Mrs. Campbell went to Madison, Wis., to take a graduate course in Social Economics under Prof. Richard T. Ely, who had gone to the University of Wisconsin from Johns Hopkins University. At the end of the year Mrs. Campbell was made special lecturer in the School of Economics, and the next spring entered upon her duties. Her lectures, eminently practical, yet with a literary finish that she cannot fail of giving to all she does, were exceedingly popular. She has given courses at the University of Illinois and at the Bay View Chautauqua in Michigan. These lectures are designated by the following titles: The Statics and Dynamics of Household Economy, The House, The Building of the House, Organism of the House, Decoration, Furnishing, Household Industries, Nutrition, Food and its Preparation, Cleaning and its Processes, Service, and Organized Living. The subtitles are full of interest. Among them are, Structural and Functional Organization of the Household—the essentials of each and their interdependence; Evolution of Economics; Division of Labor on Six Lines and the Biological Reason for this Division; Organic Structure of the House with its Evolution; Hut to Hotel; Tent to Tenement; Soil, Location, Foundation, Elevation; The Place of Architecture in Household Economics; Essentiality of Separate Home; Air, Light, Water, Ventilation, Plumbing, Drainage; Use and Value of Decoration; Racial Influences; Homes, Schools, and Prisons; Organic Relation of Furniture to Humanity; Carpets, Rugs, and Cushions; Functional Development of Society and Domestic Industries; Household Nutrition; The Kitchen, the Stomach of the House; Chemical Properties of Foods; Nutritive Values; Diets for Infancy, Childhood, Youth, Maturity, Age, and for the Sick; Market and Marketing; the Secretory System of the Household Organism; Friction; Fuel and Flies; Sweeping, Dusting and Washing; Dust and its Dangers; Light and Cleanliness, Physical, Mental, and Moral; The Servant Question; Effect of Service on Character; Philosophy of Service; Law of Organization in the Individual and Species; Organic Evolution, Racial, National, Civic, Domestic; How to Keep the Boys at Home; Home Influence; Strain of Contending Eras; Flat, Club, Hotel, and Boarding House; Lines of Development; The Higher Education and the Higher Life.

These are only a tithe of the salient topics, but

they serve to show the wide range of treatment given these most important themes.

A year ago Miss Adams of Hull House and the trustees of the Elm Street Settlement of Chicago, recognizing Mrs. Campbell's tendency to practical philanthropy and her known experience, induced her to take charge of that mission in the worst slums of any city in this country. "Little Hell," as it was aptly designated, was invaded by a group of seventeen men and women who determined to help solve the problem of how best to elevate the condition of the submerged population whose status is a disgrace and menace to civilization. Five workers (including Mrs. Campbell) lived in the house, two of them being graduates of Harvard; and twelve associates did invaluable work. Here Mrs. Campbell found all her experience of life tested and strengthened.

The subject of our sketch is a director of the National Association of Household Economics and chairman of the committee on domestic science in the National Council of Women of the United States. While these most important offices will absorb much time and attention, it is hoped that they will not prevent the continuance of that purely literary work for which she is so eminently fitted. Others with experience, insight, and ability can do noble work, but who can so vividly and dramatically portray the needs, struggles, aspirations, and potentialities of the more or less "submerged" classes of our country-people? Of the sufferings and triumphs of women, who can better hold the mirror up to notice for warning and inspiration?

At the present writing Mrs. Campbell is making certain researches and classifications among women in large cities, at the instance of the Hon. Carroll D. Wright of the U. S. Bureau of Labor Statistics. Her volume on Household Economics, just issued, marks another step in the work to be done for women and through them for the world at large.

Edward W. Bemis.

Professor Edward W. Bemis, Ph. D., was born April 7, 1860, at Springfield, Mass. He was graduated from the Springfield, Mass., High School in 1876, and from Amherst College, in 1880, receiving the honors of the class in history and political economy. He received the degree of Doctor of Philosophy in history and political economy at the Johns Hopkins University in 1885, after three years of resident study there and two years of private study while teaching and doing editorial work in Minneapolis and St. Paul.

During the next three years Mr. Bemis gave courses of lectures at Mt. Holyoke College, Amherst, Vassar, Carleton, Ohio University, Adrian College, and elsewhere. In the fall of 1887 he conducted at Buffalo, New York, the first university extension course ever given in this country. From January, 1888, until July, 1892, he was in charge of the economics and history at Vanderbilt University in Nashville, Tennessee. From September, 1892, until September, 1895, he was an associate professor of economics at the University of Chicago, dividing the time about equally between class room and university extension work.

During the last two years Mr. Bemis has been engaged in special investigations for the Illinois Bureau of Labor Statistics and the United States Department of Labor, and in editorial work for the *New York Journal* and the *Chicago Record*, being also one of the editors of the *Bibliotheca Sacra* during that time. He appeared by invitation as an expert on gas works before committees of the Pennsylvania and New York legislatures, and gave college courses at the University of Wisconsin, the University of Illinois, and Syracuse University.

Besides numerous contributions to the leading economic journals and publications, such as *The Political Science Quarterly*, the *Quarterly Journal of Economics*, the *Journal of Political Economy*, the *Annals of the American Academy*, the *Revue d'Economie Politique*, and Conrad's *Handwörterbuch der Staatswissenschaften*, and occasional articles in more popular magazines,—for example, the *Review of Reviews*, Feb., 1893, and *Forum*, March, 1896,—there have been published by Prof. Bemis two monographs of Local Government in the Johns Hopkins University Studies in history and political economy, viz: a "History of Coöperation in the United States," pp. 13-198, issued by the Johns Hopkins Press; "Coöperative Distribution," in September, 1896, Bulletin of the U. S. Dept. of Labor; "Municipal Ownership of Gas in the United States," published in 1891 by the American Economic Association, and a report (in press) of the Illinois Bureau of Labor Statistics for 1896, containing chapters on the Street Railways and Gas Companies of Chicago.

In view of the warfare waged upon Professor Bemis in connection with the severing of his connection with the University of Chicago, and the charges of radicalism on the one hand and inefficiency on the other, that were made to justify his removal, the following statements from some of the most distinguished economists in America, and others, will be of interest:

"Prof. E. W. Bemis, Ph. D., has given during the past week (March, 1896) courses of lectures on Money and Banking, and City Government, before the students of Syracuse University

and citizens. These lectures have called out the highest praise from all who were privileged to hear them. Everyone was strongly impressed with the fine character, marked ability, and exact information of Dr. Bemis. His candor and self-restraint, and his judicious statement of all sides of controverted questions, have inspired confidence and admiration, and the more noteworthy, because of certain prejudices entertained against him before his coming. These prejudices he has completely banished from the minds of citizens, students, and professors."

JOHN R. COMMONS,
Professor of Sociology, Syracuse University.

"Professor Bemis gave a course of lectures before the students of the University in 1891-92. The lectures were well received by our students and displayed a thorough familiarity with the subjects discussed. I regard Prof. Bemis as well read in the science of economics. He is a pleasant and agreeable gentleman, and I have not regarded him as a socialist, or a radical."

HENRY WADE ROGERS,
President of Northwestern University.

"Prof. Bemis's course of lectures at the University of Illinois (November, 1895) was among the most successful given during the winter, in arousing popular interest. The lecturer was greeted by an eager audience at each succeeding lecture, and many expressed the wish that the course had been longer."

DAVID KINLEY,
Professor Economics, University of Illinois.

"I have known Dr. Bemis for some years and think very highly of him. He is not an anarchist nor a socialist. He has had the courage to say that labor has its rights. I do not think he has ever gone farther than that, but some of the Chicago people are very touchy."—HON. CARROLL D. WRIGHT, Chief of the United States Bureau of Labor Statistics.

"I have a very high regard for Prof. Bemis, both as a scholar and as a teacher. His work with us (1889-92) in charge of economics and history was very successful in both respects, and it was a source of great regret that we could not keep him. I wish we were able to call him back again."—CHANCELLOR JAMES H. KIRKLAND, Vanderbilt University, April 27, 1895.

"Dr. Bemis has unusual qualifications for giving instruction in sociology in an institution where this branch of science is to be taught in a scientific way. His range of learning is very extensive, and his training in economics has been very thorough. He has clear insight and sound judgment. His views are conservatively progressive, and he seems to me to be a safe guide for students."

JOHN B. CLARK,
Professor of Political Economy Columbia College.

"Dr. Bemis gave a course of ten lectures on "Money" last autumn (1895) before our students at the University of Wisconsin. The course was scholarly and stimulating, followed with increasing interest by our students, and found helpful by all who heard it. Professor Bemis is one of the most distinguished economists of the country. While progressive, he is at the same time careful and conservative. He showed clearly in these lectures that he was a strong thinker of scientific attainments."

RICHARD T. ELY,
Professor of Political Economy, University of Wisconsin.

"The two lectures given by Professor Bemis before our students (March, 1896) gave great satisfaction." M. W. STRYKER, D. D., President Hamilton College, Clinton, N. Y.

"Prof. Bemis's lectures in Boston (April-May, 1896) were listened to with unusual interest. They showed most careful research upon the important subjects treated, subjects upon which accurate information is now especially needed by the public. Prof. Bemis's fairness, judicial temper and manifest love of truth, his singular happiness in answering questions and guiding discussion, and the devotion to honesty and progress which marks all that he says, make his work most valuable for the American people at this time."

EDWIN D. MEAD,
Editor New England Magazine, Boston.

"Those who best know Prof. Bemis are unanimous in their conviction that his wide knowledge of existing facts and his power to understand them, qualify him in a singular degree for the work of an interpreter of social problems to the people, and believe that he is qualified to meet the demands rightly made for such a teacher."—BOSTON HERALD EDITORIAL, May 15, 1896.

"Professor E. W. Bemis, Ph. D., has recently (May, 1896) delivered a brief course of lectures at Brown University. I take pleasure in saying that the lectures were of high ability and delivered in a popular and pleasing manner. Especially attending to the views and doctrines propounded by Mr. Bemis, I found absolutely nothing to which anyone could object. His ideas as revealed in these lectures are not in any sense extreme or inflammatory, but sane, temperate and conservative. While probably better informed in concrete economics than any other man in America, Prof. Bemis evinced a firm and clear grasp upon economic theory. I judge him to be admirably fitted for professional and classroom work, as well as for popular lecturing on economic themes."

E. BENJ. ANDREWS,
President of Brown University.

Geo. F. Weida.

George Francis Weida, youngest son of Peter Weida, was born in Allentown, Pa., August 15, 1870. At the age of six he entered the public schools of that city, and continued attending them until he was graduated from the high school. In 1886 he entered the School of Pharmacy of the University of Kansas. After completing the course in that school in 1888, he was retained as assistant in the department from which he was graduated, at the same time being permitted to continue his studies in the collegiate department of the institution. He took the B. S. degree from Kansas University. Since 1890, he has been engaged in scientific study, first at Lehigh University, afterwards at Heidelberg, Germany, and for the three years following October, 1891, at the Johns Hopkins University. In the summer of 1890 and 1892, he spent terms at the Harvard Summer School. His principal subjects during his university study were chemistry, mineralogy, and biology. In June, 1893, he was appointed a Fellow, and in February, 1894, he received from Johns Hopkins the degree of Doctor of Philosophy.

In the years 1894 to 1896, Mr. Weida served as professor at Blackburn University, Carlinville, Illinois. In 1896-7, he held the chair of physics and chemistry in Baker University, at Baldwin, Kans. In 1892, Mr. Weida married Miss Frances Elizabeth Shepherd, a native of Kansas. Following are some statements relative to Prof. Weida's character, scholarship, and worth:

Ira D. Remsen, head of the department of chemistry in Johns Hopkins University, one of the leading chemists of America, wrote March 26, 1894: "Dr. G. F. Weida has been a graduate student in this university for the past three years, and has recently received the degree of Doctor of Philosophy from us. His scholarship is excellent, and his experimental work has been carried on with skill and industry. I take pleasure in recommending him to those who desire to engage the services of a well-trained and well-informed chemist. During the present

year, Dr. Weida holds one of the two fellowships in chemistry annually awarded by our Faculty."

Under date of May 27, 1897, Prof. Remsen wrote to Regent Hoffman: "Dr. Weida was a graduate student here for three years, and worked most of the time under my personal supervision. He is well qualified to teach chemistry in any college, and I believe he would be a useful officer. While here, he showed himself to be an unusually intelligent worker, and I believe his work since he left here has been quite satisfactory to the authorities of the college with which he has been connected. I know of no reason why he should not succeed in the position which he seeks in your State Agricultural College, and I should be glad if what I have here said is of assistance to him in securing the place."

President Rogers, of Blackburn University, Carlinville, Illinois, under date of February 25, 1896, wrote: "George Francis Weida, Ph. D., (J. H. U.), has taught the sciences in this institution for two years with zeal and efficiency. His work has included botany, zoology, chemistry, physics, and geology; and this year, owing to our financial embarrassments, he has also taught the German course. This makes a wide range of work; yet it has been done with great acceptance."

Prof. L. E. Sayre, head of the department of pharmacy in the University of Kansas, writes: "I wish to say for Mr. Weida that he has been assistant under me in the University of Kansas, and for three years I have been in a position to know of his work and capabilities. I can say with the greatest assurance that Dr. Weida is a young man of exceptional qualities as an instructor, and I fully believe that he will serve your institution with much satisfaction to you. Since acting as assistant here, he has been at Johns Hopkins, and his work there, with that he had abroad, gives him an equipment of unusual quality."

Dr. M. T. Learned, formerly associate professor of German, Johns Hopkins University, says: "Dr. George F. Weida is a specialist in chemistry, but has at the same time a good working knowledge of German. In any case where chemistry and German must be combined, I am confident Dr. Weida would give most thorough satisfaction. His career at this University was such as to have justified expectations of brilliant success in his chosen field."

James Allen Smith.

One of the most worthy appointments made by the Board of Regents during the recent reorganization was, without a doubt, that of Prof. James Allen Smith, recently of Marietta, Ohio. By a coincidence, Prof. Smith was appointed almost simultaneously to a similar position in the State University of Washington, at Seattle. Although Prof. Smith has decided to accept the Washington instead of the Kansas offer, we publish the following, partly as indicative of the kind of men the Board have been seeking—and finding; and partly because we may in future desire to say something further of Professor Smith.

Professor James Allen Smith, Ph. D., recently of Marietta College, Marietta, Ohio, graduated at the Kansas City High School, in the highest class. He afterwards entered the Missouri University, leading his class at that institution, and graduating in 1886. He afterwards took the degree of A. M. He also took the course in the law school of Missouri University, earning the degree of LL. B. in 1887. He next entered upon the practice of law in Kansas City, Mo., continuing in this work for five years. Becoming deeply interested in the money question, and in connection therewith, in the general industrial problem, he next went, in the fall of 1892, to the University of Michigan for a post-graduate course in economics and finance. At the end of his second year in this institution he took the degree of Doctor of Philosophy. He remained, however, for a third year, continuing his studies, after which time he accepted the professorship of Economics and Sociology at Marietta College. Here he remained for two years (i. e., from the fall of 1895 until June, 1897), conducting the work of his department with distinguished success.

The following statements relative to his character and to his work at the different points above named will give an idea of the man:

Washington Gladden:—I know Prof. Smith well, and value him highly. He is a man of the finest scholarship, and the soundest and strongest character, a modern man in every sense, and a very successful teacher. He is one of the most intelligent teachers of economics in the country.

From another letter by Dr. Gladden:—As to his qualifications there can be no question. He is a thoroughly furnished economist, a good scholar, and an original and vigorous thinker, with a strong grasp on the larger aspects of economics and sociology, and a most successful teacher. . . . He seems to me a man of fine character and noble aims, a man whose personal relations with his fellow teachers and with students are likely to be stimulating and salutary.

From a professor in Ohio:—I am convinced it would be extremely fortunate to secure Prof. Smith's services; for, first, he is an original investigator, thoroughly posted in his subject, and capable of doing high and scholarly work. His instruction in Marietta has been of a very advanced order. He has also given the greatest satisfaction as a teacher. Among the students he has an enthusiastic following, due as well to his skillful teaching as to his inspiring manner in the lecture room. Personally he is very much liked and very highly esteemed by everyone, both in college and by the citizens of the community. If one thing rather than another recommends him, it would be his admirable personal qualities, which are sure to win him friends everywhere.

From a professor in Louisiana:—We were fellow students in the Missouri University, and as an undergraduate he was known to be painstaking, conscientious, and thorough in his work. . . . In Michigan University, as in Missouri University, he was accorded one of the first places in the estimation of his professors. His thesis upon the money problem has attracted favorable attention. As a teacher at Marietta, I know him to be one of the most highly esteemed. Students who have options choose his work. . . . In the dozen years I have known him intimately, I have learned to esteem him more and more for his scholarly and manly traits.

Prof. Raymond Weeks, of the University of Missouri:—I feel called upon, as one who has known Prof. Smith intimately for some twenty years, to write you in his behalf. Dr. Smith's preparation has been of the finest. He holds three degrees from this institution, and the degree of Ph. D. from the University of Michigan. . . . At Michigan. . . . Dr. Smith was considered the most talented student in graduate work. Dr. Adams entrusted him with lecturing in his place during his frequent absences, and expressed high admiration for him. . . . Although political economy is not my specialty, I have for years seized every opportunity to hear the great authorities on this subject, both in America and in France and Germany. I must say that nowhere have I seen Dr. Smith's superior in all good qualities: clearness and method of exposition; vigor and originality of thought; and intense earnestness. On the subject of money Dr. Smith is already conspicuous, his articles being known both sides of the Atlantic. . . . James Allen Smith is almost the type of man that I admire most: talented, modest, courageous, generous to a fault, incapable of falsehood, loyalty itself. How could I say better what he is than to say that, although to his regret—not a Harvard man save by ardent sympathy, he is the type of most that we learned to love at Harvard?

Prof. W. J. Spillman, State Agricultural College of Washington, Pullman, Wash.:—Few men have enjoyed the educational advantages that Prof. Smith has. . . . He is a man whose

integrity and ability compel admiration, and no man I ever knew was more worthy of confidence and esteem. I know personally that his students idolize him, and that he is in every way a safe model for young men to copy after. Amongst the many applications you will have received, I venture to say none will be from men who can bring greater honor to the College in the long run than would Dr. Smith.

Henry C. Adams, professor of political economy and finance, University of Michigan:—Mr. Smith entered here as a member of the graduate school, and spent two years in the further prosecution of his work. The thesis which he presented for the doctor's degree was upon the money question, and presents the best argument I know of for what is known as the "tabular standard of value." The thesis was published by the American Academy of Political Science. Dr. Smith is a man of fine presence, a careful student, an interesting instructor, and a person of broad and comprehensive sympathies for the people. . . . I consider this paper (upon the multiple standard of value) a decided contribution to the literature of monetary science. It carried, further than it ever had been carried before, the idea that commodities properly employed, and notes issued against them, could be used as the basis of the monetary system, while at the same time preserving the convertibility into the metals, so as not to disturb our foreign trade. . . . I have watched Dr. Smith closely since he left Ann Arbor, and am confident that he is a very successful teacher.

Rev. George Rowland Dodson, Minister of the First Unitarian Society of Alameda, Cal.:—I knew Mr. Smith for several years at the University of Missouri. While there his character as a student was the very highest. His capacity for labor, his energy, and passion for truth, used to excite my admiration. By nature and training he is an ideal teacher, who not only interests but inspires the students to thorough and comprehensive studies. . . . I desire to unqualifiedly recommend him to you, and will give bond for his character as a man and teacher to any extent.

Prof. Francis P. Daniels, Missouri State University:—I knew Dr. Smith while he was at the University of Michigan. I was deeply impressed by his love of truth, ripe scholarship, and his power of presenting clearly his ideas. In finance, I deem Dr. Smith especially strong. In this, his chosen field, I think he has no peer in this country. . . . Dr. Smith never rests content until he has gone to the bottom of every subject, until he has ascertained not only its cause, but also what are to be its results in the future. . . . He has the rare qualities of a teacher of advanced science, such as the patience necessary to the exhaustive study of difficult subjects, and an unwearied zeal in original research.

From a clergyman in Ohio:—Prof. Allen Smith is a very able man, and one of the most conscientious I ever met. He has created an enthusiasm among the students in Marietta that no other professor has been able to create in his department. The fact that his work is nearly all elective, and that he has the largest classes of advanced students in the college, will give you some idea of his force and influence as a teacher.

Miss Mary F. Winston.

Mary F. Winston, Ph. D. (Goettingen), was born at Forrester, Ill., in 1869. She entered the University of Wisconsin in 1884. In 1889 she was graduated with special honors in mathematics. During the two years following she was instructor in mathematics in Downer College, Fox Lake, Wis. In 1891 she was appointed fellow in mathematics at Bryn Mawr College, and studied there one year, under Professors Scott and Harkness. During the following year she held an Honorary Fellowship in Mathematics at the University of Chicago. In the summer of 1893 she attended at Chicago the mathematical congress, in which Prof. Klein, of Goettingen, took a prominent part. She was honored with an invitation to attend a colloquium, or series of lectures and discussions on mathematical subjects, held by Prof. Klein at Evanston, after the close of the congress. Prof. Ely, of Vassar College, was the only other lady in attendance.

The interest excited by these meetings, as well as the encouragement given Miss Winston by some persons whom she met there, led to the resolution on her part to go to Goettingen and if possible to carry on her mathematical studies there. Prof. Klein, after an interview in which he questioned her carefully as to the work she had done, agreed to write to the minister of education at Berlin in her behalf, and to do what he could to secure for her the permission to study in Goettingen, a privilege never before granted to a woman. Immediately after making her final decision to go abroad, she received an offer of a position in Vassar College, which she was obliged to decline in order to carry out her plan for her studies.

On her arrival in Goettingen she found two other young women who, like herself, were candidates for admission to the university. Their applications were sent together to Berlin, and all were admitted at the same time. Miss Winston remained in Goettingen, one of the chief mathematical centers of Europe, for three years, working principally in mathematics, but devoting some time to physics and astronomy; and in July of last summer she passed her examination for the degree of doctor of philosophy *magna cum laude*. Since last June Miss Winston has been a member of the American Mathematical Society. While in Goettingen Miss Winston was granted the distinction of a fellowship by the American Association of Collegiate Alumnae. During the following summer she did her first piece of original work, under Prof. Klein. The results were published in the *Mathematische Annalen*, one of the great mathematical journals of Europe. Her doctor's dissertation is now in press at Goettingen.

Following are statements from persons competent to speak of Miss Winston's preparation:

UNIVERSITY OF CHICAGO, Feb. 15, 1894.
Miss Mary F. Winston has attended my graduate courses at the University of Chicago during the year 1893, and I take great pleasure in testifying to the high opinion I have of her abilities as a mathematician. Miss Winston not only combines clearness and quickness of apprehension, and perseverance, but also shows decided talent for research work. She is well prepared to follow with advantage the courses of one of the leading Eu-

ropean mathematicians. At present she is studying with Prof. Klein in Goettingen, and it is of the greatest importance to her mathematical development that she may be able to continue her studies there for at least another year. I can highly recommend her as a worthy candidate for a scholarship.

OSKAR BOLZA,
Professor of Mathematics, University of Chicago.
[Written in the interest of Miss Winston's appointment to the mathematical fellowship above mentioned.]

ST. JOSEPH, MO., Jan. 25, 1897.
Miss Mary F. Winston has taught mathematics and elementary German in the St. Joseph High School during the current year, to my very great satisfaction. The High School feels honored to number among its teachers an instructor with such scholarly attainments. Her great learning, dignified bearing, and noble character secure for her the respect and esteem of those entrusted to her tuition, and render the maintenance of discipline an easy matter. I should regret exceedingly to lose Miss Winston from my faculty; but her ability and scholarship entitle her to a better position than can be found in my school.

Respectfully,
C. E. MILLER,
Principal St. Joseph High School.

STANFORD UNIVERSITY, CALIF., May 13, 1896.
While I was acting principal at Downer College, Fox Lake, Wis., Miss Winston had charge of the department of mathematics for two years, and her work there as a teacher showed ability of the first rank, in originality, thoroughness, and power to organize and execute the work of the department. She had power to arouse and hold the interest of her students, and always commanded their respect and obedience, as well as their confidence and esteem. . . . Her resignation on accepting a fellowship at Bryn Mawr College was a matter of regret to the trustees and faculty and all interested in Downer College. . . . I am glad to recommend Miss Winston, as from my knowledge of her I feel sure she will succeed in any work she is willing to undertake.

ORPHA E. LEAVITT.
Prof. Eliakim H. Moore, of the University of Chicago, writes us:—". . . Mathematically she is of clear and vigorous thinking, well poised, with a wide acquaintance with the literature of modern mathematics. She has excellent pedagogical characteristics. I recommend her very highly, and with much pleasure, for the position in question, being firmly convinced that she would make a high success, and at once win the marked esteem of colleagues and students."

"GOETTINGEN, den 2nd April, 1894."
"Frä. Mary Winston hat während des Wintersemesters an meinen Vorlesungen und Uebungen mit grossem Fleiss und gutem Erfolge selbstständig theilgenommen, so dass ich nicht anstehen sie für die 'European fellowship' of the American Association of Collegiate Alumnae bestens zu empfehlen."—PROF. DR. FELIX KLEIN.

Prof. H. B. Newson, of the department of mathematics in the State University of Kansas, writes us:—"I know Miss Mary F. Winston personally, and it gives me pleasure to speak a word in her behalf. There is so much to be said in her favor that it is not an easy task to tell what to emphasize, and what to pass over lightly. I can testify to the soundness of her scholarship, to the breadth of her training and culture, to her strong character and personality, and to her refined and genuine womanhood. Though she is a doctor from the best German university, and knows what her place in the world is, she is without affectation, quiet and unassuming, 'bearing all that weight of learning lightly as a flower.' As her papers show, she passed the examinations at Goettingen in mathematics *magna cum laude*, under Prof. Felix Klein. Klein's name is now the foremost in the mathematical world, and Goettingen is the mathematical center of Germany. . . . Nothing that I can say in regard to her attainments will add anything to the weight of her testimonials; I can only call attention to their very high character. . . . It is hard for me to imagine the credentials of another candidate which would be considered superior to Miss Winston's. . . . The very names of the subjects she has mastered are enough to make the non-mathematical man or woman dizzy. . . . Miss Winston will give the institution a scientific standing that will place it on a level with the very best in the country. She will be a mathematical investigator, writer, and publisher of original work, that will give reputation to the college. I think that in this respect she will be able to hold her own with the very best. With Miss Winston in your faculty your college could boast of a mathematician that ranks with the best anywhere in the country. . . . In higher mathematics the State University has been without a rival among the Kansas colleges for a great many years. For my part I should gladly welcome a little rivalry, and Miss Winston would put us on our mettle. . . ."

Prof. C. A. Van Velzer, of the department of mathematics in the University of Wisconsin, writing April 8, 1897, said:—"I can recommend Miss Winston in the very highest terms. She graduated at this university, and took special honors in mathematics at the time of graduation. . . . Miss Winston is an extraordinary woman. She is a most excellent mathematician, an agreeable person, and a good teacher, and withal she is very modest."

Prof. J. H. Tanner, of the department of mathematics in Cornell University, wrote as follows:—"I was in Goettingen on a leave of absence from here during nearly two of the three years that Miss Winston spent in Goettingen, and thus know rather intimately concerning what she did there. She impressed me as an unusually strong mathematician; I should place her certainly in the first group of half a dozen women mathematicians in this country. Few of our people, whether men or women, have had so good a training as has this young woman; added to this she has an especially good mathematical mind. She has thoroughly saturated herself with the spirit of modern ideas in mathematics, and is unusually clear and happy in expressing herself. . . . She is abundantly able to lecture in a variety of graduate work. . . ."

Mr. A. O. Wright, trustee of Downer College, in which Miss Winston first taught, says:—"Miss Mary F. Winston was a teacher in Downer College some years ago, when I was chairman of the committee on teachers of that institution. This was her first experience in teaching; but she did admirably in the difficult subject of mathematics, so hard for girls generally to study. She resigned to take a post-graduate course, much to our regret. I take pleasure in vouching for her scholarship, her ability to teach, and her character, all in the highest terms."

Paul Fischer.

Prof. Paul Fischer, B. Agr., M. V. D., was born in Cincinnati, Ohio, in 1869. He is the son of a farmer. He received his common school education in the public and high schools of Cincinnati. He spent a year in practical work on the farm and doing some preparatory studying. He entered the Ohio State University in the fall of 1885 as a student in agriculture. After two years he went back to his father's farm, which contained three hundred acres of land, and had complete charge of this estate for two years. At the end of this time he reentered the University to finish the course in agriculture, expecting to follow farming as a vocation. In 1891 Mr. Fischer graduated with the degree of Bachelor of Agriculture. By taking extra work in his senior year, and doing two full years' work in the following year, he completed the course prescribed for the degree of Doctor of Veterinary Medicine in 1892.

His plan at this time was still to make farming his future vocation; but his election as assistant to Dr. Detmers, some days before his graduation, induced him to take up college work for that year. He instructed in veterinary anatomy and surgery, in the school of veterinary medicine at the Ohio State Uni-

versity, and also assisted in the general clinic the following year.

Mr. Fischer then determined to fit himself more thoroughly for the work he had begun; and so secured from the trustees a leave of absence to go abroad and pursue his studies in the veterinary schools of Germany and Austria. Most of his time was spent in Hanover, Berlin, and Dresden. While in Berlin he spent three months in the bacteriological laboratory of Dr. Robert Koch. Most of his time there was devoted to bacteriological studies; but he also spent some time in making a special study of the conditions of the white blood corpuscles in certain diseases of the horse. The results were published in the Berliner Tierärztliche Wochenschrift, under the title of "Blutuntersuchungen bei Pferden."

Before leaving Germany Mr. Fischer visited all the principal veterinary and agricultural colleges of Germany and Austria; and then returned to Ohio to reaccept the position of first assistant in the College of Veterinary Medicine. In addition to this work, Mr. Fischer also taught bacteriology and horse shoeing, and had entire charge of the surgical clinic.

In 1895 Mr. Fischer accepted a call to a more lucrative position in Utah, as a professor of agriculture and veterinary science in the State Agricultural College, at Logan. From that point he comes to us.

PERSONAL.

Secretary Graham visited Topeka, Wednesday, on College business.

John Hessin and Ned Green have decided to seek a cooler climate—have gone to Alaska.

Prof. A. S. Hitchcock has bought the Prof. Pope's place on College hill and is moving into it this week.

Sec'y and Mrs. Graham are enjoying a visit from Mrs. Graham's mother, Mrs. R. M. McConnell of Topeka.

Miss Anna Hanson's mother has returned from Washington, intending to make Manhattan her future home.

Miss Lorena Clemons of the Secretary's office is spending a few days with friends at the home farm in Clay county.

Professor Burnett, of the South Dakota Agricultural College, and a candidate for the chair in agriculture was here for several days last week.

Prof. Nichols took advantage of the Y. P. S. C. E. excursion rates for a trip to the Pacific coast, where he is even yet, sight seeing, in Washington.

Prof. O. E. Olin has been teaching English branches in the Riley county teachers' institute and is now conducting the Wabaunsee county institute at Alma.

President Tanner of the Utah Agricultural college was in town last Friday looking over our College and its workings, escorted by Dr. C. F. Little and Secretary Graham.

Prof. Frank Parsons writes under date of May 31, 1897: "I am delighted to hear that you have a good prospect of securing Prof. Bemis. I regard him as one of the greatest of our progressive men."

Prof. Paul Fischer, B. Agr. M. V. D., the new professor of veterinary science from the Agricultural College of Utah, at Logan, spent a few days with us, on his way to visit during the summer with his parents in Ohio.

Prof. E. E. Faville, elected to the chair of Horticulture and Entomology, has telegraphed his acceptance. Prof. Faville is a graduate of the Iowa State Agricultural College and comes on recommendation of Secretary Wilson of the U. S. Dept. of Agriculture.

Fred Sears, formerly foreman of the Horticultural department at this College, has resigned his position as professor of horticulture and botany in the Utah Agricultural College and has returned to Manhattan. Prof. Mason has been asked to apply for the vacated chair in Utah.

Mr. Chas. B. Allen, a stonecutter working on the new building, tells us that he did much of the stone-cutting on the first College building, erected on the old College farm 38 years ago, and that he has worked on almost every building on the campus from that day to this.

Prof. Fredric A. Metcalf, the new professor of oratory, has accepted the chair created for him at the College. Prof. Metcalf was a member of the faculty of the Emerson College of Oratory, of Boston, one of the foremost institutions of its kind in the country. It is with regret that the college officials at Boston see him leave for his new position.—*Daily Republic*.

President Will left last Monday noon to attend the meeting of the Association of American Agricultural Colleges and Experiment Stations at Minneapolis, Minn. He expects to be absent about a week. Prof. Fairchild left for the same meeting on Saturday. The College being entitled to two delegates, and Prof. Fairchild being chairman of the association and desirous of attending, the Board of Regents appointed both the President and the Ex-President, as delegates.

Calendar.

1897-98.
Fall Term—September 9 to December 18.
Winter Term—January 4 to March 26.
Spring Term—March 29 to June 9.
June 9, Commencement.
1898-99.
Fall Term—September 8 to December 17.

To School Officers.

The College Loan Commissioner has funds now to invest in school district bonds at par. The law requires that no bonds be sold at par or less without being first offered to the State School Fund Commissioners and to the State Agricultural College.

Address, T. J. HUDSON,
Loan Commissioner,
Fredonia, Kansas.

GENERAL LOCAL NOTES.

The family of Prof. Willard and Mrs. Adah Perry have been enjoying a short visit with I. D. Gardner at Wakefield.

Prof. I. D. Graham has become a life member of the State Horticultural Society, and has received a certificate duly signed to that effect.

Applications for catalogs and information concerning the College are numerous. The catalog for 1896-97 will be issued shortly, and will be mailed at once to those interested.

Information is wanted of the whereabouts of Bertie Prather, a boy fifteen years of age, who left the home of his uncle, Narr Kern, at Milan, Missouri, April 12, presumably to make his way to and attend this College. The photograph of the missing lad may be seen in the Secretary's office.

Mrs. A. A. Stewart and family have gone to Olathe to join Mr. Stewart, who was installed as superintendent of the State Institution for the Education of the Deaf and Dumb on July 1. They have many friends here and will be greatly missed in both church and social circles.—*Manhattan Republic*.

The mechanical department will be kept busy all summer repairing, repointing and reroofing the many buildings, setting a new boiler in the powerhouse, extending the electric light system, finishing the addition to the workshops, making furniture and equipments for the different departments, etc., etc.

The "summer gang," horticultural department, is formed of the following students and post-graduates: Office work—T. W. Morse; Experimental work—W. L. Hall; Forestry work—R. J. Barnett; Field and Orchard work—C. P. Hartley, Mark Wheeler, E. C. Butterfield, and A. D. Whipple; H. W. Moore, teamster.

On Thursday afternoon of last week there was a strike among the mechanics and laborers who work on the new building. Things looked dismal for a short time, but all were pacified by the announcement of the contractor that he would declare payday within twenty-four hours. All is well now, and work is progressing rapidly.

Domestic Science hall is growing slowly but surely. The stonework of the basement is about finished and the carpenters are laying the first-floor joists. Among the laborers and mechanics we notice several students—C. C. Gasser is handling the trowel, and J. A. Butterfield and John Albert Lee are transporting and laying ashlar rock.

The Manhattan Horticultural society will hold its regular meeting at the home of Wm. Baxter, south of the College, Thursday, July 22, at half past two o'clock. The program is as follows: "A training for the useful in horticulture," Prof. I. D. Graham; "The farmer's vineyard," I. Jones; "Possibilities of the Kansas garden," Mrs. R. H. Kimball.

Charles S. Davis, the new superintendent of printing at the Agricultural College, has just completed the printing of several thousand leaflets entitled "The Reorganization of the Kansas State Agricultural College." The mechanical work on the leaflet shows that this branch of the College has been placed in the hands of a most competent artist.—*Daily Republic*.

Prof. Geo. F. Weida, the newly elected chemistry professor at the College, was in town last Saturday and Sunday. Prof. Weida comes here from Baker University, where he held the chair of chemistry and physics. He was formerly assistant at the State University of which he is a graduate. He has also a Ph. D. from Johns Hopkins and has studied in Heidelberg.—*Nationalist*.

Yentje Netherland (H. F. H. B. 27591) under the direction and care of Prof. T. H. Connell of the Texas Experiment station, has broken the records of her breed as a milk and butter producer. She has given twelve gallons, two quarts of milk per day, producing four pounds, one and one-half ounces of butter. During seven consecutive days she yielded 707.5 pounds of milk, and in thirty days she yielded 2,959¾ pounds of milk, almost 100 pounds per day, a most surprising record. Care in breeding and in feeding, will accomplish wonders with the milk-cow.—*Farm News*.

The department of superintendence of the N. E. A., will hereafter spell as recommended by the committee appointed at its Indianapolis meeting. The general association will undoubtedly adopt the recommendation of the committee. So we might just as well fall into line and learn how to spell according to the new gospel: Program (programme), tho (though), altho (although), thoro (thorough), thorofare (thoroughfare), thru (through), thruout (throughout), catalog (catalogue), prolog (prologue), decalog (decatalogue), demagog (demagogue), pedagog (pedagogue).—*State Normal Monthly*.

GRADUATES AND FORMER STUDENTS.

Miss Mary Lee, '89, has returned to Kansas City after a prolonged visit with her father and brother on College hill.

O. E. Noble, class of '97, of Leonardville has been attending institute here.

Prof. Geo. F. Weida, the new professor of chemistry will occupy a house to be built by Rev. Gill just west of the parsonage.

Miss May F. Harmon, second year '87, has been appointed teacher of drawing in the Kansas Institution for the Deaf in Olathe.

Prof. Walters has been kept busy since Commencement with the new Domestic Science Hall, the erection of which he is superintending.

C. M. Breese, of Manhattan was in this vicinity, interviewing the Republicans in regard to his candidacy for County Clerk.—*Riley Regent*.

C. C. Smith, '94, went to Alma Saturday to take up work in the institute at that place. Mr. Smith expects to teach in Wabaunsee county this year.

J. W. Beck, who was a student here away back in 1877 came down, last Monday, from his farm near Magic to note the progress of things on College hill.

Mr. H. N. Whitford, '90, and Miss Marie Haulenbeck, '97, have been employed as extra office force in the Secretary's office during the rush of work which always comes after the closing of the year.

Mr. A. B. Kimball, '89, and Miss Myrtle Whaley were married at the bride's home on Wednesday, July 7. They left at once for their future home at Scandia where Mr. Kimball is engaged in newspaper work.

R. S. Kellogg ['96] came to town Sunday to do some shopping. He is now assisting F. D. Munsell in the harvest field. Roy expects to go to Manhattan this fall to take up some special work at the Agricultural College.—*Russell Reformer*.

Myron A. Limbocker, class of '95, now also a graduate of the State University law school, is swinging his shingle to the breezes in Kansas City, Kan., and reports the winning of his first case in less than two weeks after his admission to the bar.

The marriage of Miss Mary Salome Cutler and Rev. Edwin Milton Fairchild is announced as having taken place at Troy, New York, on Thursday, July 1. Mr. Fairchild is the eldest son of Ex-President Fairchild, and was a third-year student at the College in '83. He has many friends who will wish him much happiness in his new relation.

F. A. Dawley, a member of the class of '95 of the Agricultural College, and a classmate of the editor and wife, was over from Osborne county this week to look at some of Sutton's blooded cattle with a view to making a purchase. He is engaged in farming and stock raising on a farm between Waldo and Covert.—*Russell Reformer*.

David Fairchild arrived in the city, Tuesday, July 13. Mr. Fairchild has traveled extensively in Europe, Asia and Australia, during the past few years, devoting his time to the study of botany. He returned by way of San Francisco, and will spend a short time with friends and relatives in the city prior to his leaving for Washington, D. C. He will speak of some things he saw, next Tuesday evening, in the Congregational church, for the benefit of the Ladies' Society.

From the report of the last meeting of the city school board we glean the following: "Miss Ida Norton was elected assistant librarian, and C. A. Gundaker janitor, of the Poyntz avenue building. Teachers elected for ensuing year have been assigned as follows: Lora Waters, ['88] ninth grade; Lucy Waters, ['94] and Martha Harvey, eighth grade; W. E. Smith, ['93] seventh grade; Elsie Crump, ['95] and Delpha Hoop, ['91] sixth grade; Anna Hall and Emma Spohr, fifth grade; Stella Kimball, ['94] fourth grade; Edith Stafford, third grade; Winnie Houghton, ['97] second grade, Francis Campbell, first grade; Angie Young, first, second, and third grades, colored. W. E. Smith, ['93] was recommended for principal of the Central building and Miss Emma Spohr for principal of Avenue building." Seven of the teachers are graduates of this College and all but two have attended its course for one or more years.

I get tired while listening to some men talk when they say that farmers do not need the best of everything. The best is none too good for the farmer if his means will admit of his obtaining the same. Economy is a fine thing, and is a necessity in times like the present. There is room for improvement, education and elevation among the farmers, and new ideas along these lines cannot be placed much too high.—*Ex. Correspondent*.

A decent lawn costs very little money. While one likes to see flowers and shrubs, yet it is doubtful whether there is any finer setting for a country home than a lawn of ample size, neatly clipped, and studded with forest trees; and these things cost very little in cash, and are in the reach of all. Usually some grading is needed, and there should be a slight incline from the highway to the house. This can be obtained on flat land only by putting the house on a comparatively high foundation, and then filling in with earth drawn from a distance for that purpose. No grass is superior to blue grass for a sod; and a sprinkle of white clover in it is liked by many.—*Practical Farmer*.

THE PRESENT CONDITION OF THE FARMER.

BY E. P. POWELL.

It has generally been understood that the free-silver craze was due to the depressed state of the farmers of the West—a condition deplorable, if not desperate. When corn goes down to nine cents per bushel, oats to seven cents, and wheat to forty-two cents, what is the chance of the producer? Mr. William E. Dodge, after attending the Currency Reform Congress in Indianapolis, made this report:

I found that there were great sections of the Southern and Western States where there was absolutely no money at all. One gentleman told me that in his county, which was quite a rich agricultural section, by some happy accident a \$50 bank bill had come down into the county, and that he had spent four days in visiting the towns striving to get it changed into smaller bills, but had been unable to do so. There were senators who told me their constituents never saw a dollar of money from the beginning of the year to the end. In fact, everything was drifting back to the old times before money was invented. I came away from Indianapolis with this very firm impression: that, unless those of us in the more favored parts of the country understand the condition of our brothers and our fellow citizens, and bring about some wise methods for their relief, when the year 1900 comes, we shall be swamped with an infinitely powerful vote.

This is a startling condition of affairs. It is no wonder Mr. Watterson of the Louisville Courier-Journal says:

I am afraid that organized wealth and power have not yet grown wise enough to scent the danger that is upon them. In its concentration of the wealth of the country and in its ostentatious display of that wealth, in the gradual cultivation of caste, in the tendency to hug its vast riches, and in the finding of means to keep its millions at home, let the wealthy section behold a danger it would be well to consider in the light of both ancient and modern history.

Ex-Secretary Francis is not an alarmist—on the contrary, an unusually cool-headed business man. But he said recently that we must use good judgment to avoid a revolution.

It is not well to quote too many of these warnings; but, as these depressed conditions are not local, but, on the contrary, are slowly creating a depressed sentiment in the East as well as the West, we do need to consider what are the facts. These are not a mere complaint of hard times, but a growing conviction on the part of the farmer that he is relatively badly off. Here are some of the data he relies on. Before the Civil War, the economic conditions of three branches of industries were that agriculture was ten per cent. in value of annual products ahead of manufactures. Our commercial marine was hardly behind that of England, theirs having 5,700,000 tonnage, ours 5,300,000. Now agriculture is forty per cent. relatively behind manufactures; and our merchant marine is so nearly ruined as to be less than half what it was in 1797, in the infancy of the republic. The development of manufactures has been phenomenal. This is a strange economic report; but the farmer complains that he is not only left in the lurch, with a necessity for seeking foreign markets, but must do it in foreign ships. While the home market is secured to manufactures, its buying capacity is so reduced that the farmer cannot purchase what the manufacturer offers nor sell what he himself holds as a surplus.

Before 1860 our farmers owned seventy per cent. of the national wealth: now they own about twenty-four per cent. In the decade ending 1890 tenant farms increased thirty-two per cent., freehold farms thirteen per cent. That ratio will turn our whole farming population into tenants in just forty-eight years. We are averaging an annual sale of 16,240 farms to pay interest on mortgages. About ten per cent. of farmers, for the first time in the Eastern States, are unable to pay taxes; and many of these will be sold out by the state. A farmer said to me yesterday:

But what is to be done? The farmers are getting discouraged—that is the word for it. Then comes recklessness, and by and by will come lawlessness.

Is this relatively worse than the condition of other classes?

But, while the farmer is not protected as a class, he is paying more than his share of the taxes. He pays seventy per cent. of the taxation, since an income tax is forbidden by the supreme court. He finds, also, that the cities are not paying their just ratio. Take Chicago, for instance, where the assessment is \$100,000,000 less in 1893 than in 1873; yet, in building alone, \$400,000,000 has been put into Chicago's estate between these dates. The farmer's taxes have certainly not been reduced where, since 1873, they have not advanced. The government expenditures, which were less than \$60,000,000 in 1860, and which in 1867 were, on an average, \$181,000,000, average now annually \$292,000,000, and in 1896 were \$365,000,000.

Meanwhile, during these same forty years that have upset the balance of industries, there has been an astounding production of two classes: (1) millionaires have increased from only six to over 4,000; (2) tramps have been increased from none to 1,000,000, with another million on the edge of trampism. In Chicago they are feeding one-tenth of the whole population. In Chicago seventy-one per cent. of the population are tenants, in New York ninety per cent., in St. Louis eighty per cent., in Philadelphia ninety-seven

per cent. With all this overgorging of cities and desperate state of the poorer classes, a recent census of the farmers of New York State taken by a society headed by Abram S. Hewitt, reports that seventy per cent. are anxious to sell and get into towns. It also reports that thirty-five per cent. of the farmers of that State are losing money, and only fourteen per cent. laying up a balance. These figures are as favorable as any that can be obtained East or West.

Now, says the farmer, this state of affairs involves blundering and injustice. The three natural elements of national prosperity are all here: (1) large, unfailing crops; (2) more wealth per capita than anywhere else on the globe; (3) a trade balance largely in our favor. In 1896 the balance was \$306,000,000 in favor of the United States—the largest in our history. But each year we, the farmers, furnish over seventy per cent. of all exports to make this favorable showing of trade. We are saving you from bankruptcy as a people, but are tumbling into bankruptcy ourselves, in a wholesale rush.

These are facts; and we cannot push them aside by saying they belong in the sphere of political economy, or of politics. They affect our whole economy. They are moral questions. They concern us by concerning our neighbors. Jefferson, our one supremest statesman, said, "America must, for her own safety, remain pre-eminently agricultural." But we have since Jefferson's day seen landholders go down from ninety-six per cent. of the population to forty-two per cent. Before the Civil War forty-four per cent. of our people were still producers: in 1890, seventeen per cent. The unbalancing of our industries is at the bottom of our national misery. Legislators may create a boom by means of artificial forcing of certain industries: it will lead inevitably to reaction. We need a class of statesmen in the place of politicians—men who will honestly study our economics to the bottom. And let no man think that, in this age of world-fellowship, we Americans can thrive alone. Not only should war with armaments end, but commercial warfare should be understood as a part of mediocrity to be forsworn. The Master of masters said, "The field is the world." Our statesmen insist that the field is only their insignificant corner of the world.

What does the farmer demand?

1. That the markets of the world be open to his products, as far as possible. Instead of assailing German trade, and in turn suffering from her discrimination against our farm products, we should have humanitarian reciprocity.

2. That taxation, instead of annually increasing, be lowered to meet an economic administration of public affairs. As matters now are, with nearly \$7 per capita taxation, the government is running \$90,000 a day behind its expenses. President Cleveland's vetoes of vast stealings have been passed over his head with a shout of derision.

3. That taxation be honest, so that a millionaire shall bear his just share of the burdens.

4. That we have less legislation altogether. Each Congress passes about 10,000 bills; each legislature about 2,000. Most of these are for private or sectional advantage.

5. That legislation seek not to increase the upset of industries, but to restore an equilibrium.

6. That our public schools teach the elements of agriculture as well as those of trade. The farmer is learning to believe that a remedy for such a state of affairs as is now destroying agriculture cannot be found in merely increasing revenue.—*The Christian Register (Boston), April 1, '97.*

Weather Report for May, 1897.

BY C. M. BREESE, OBSERVER.

The temperature of the past month was nearly normal; cloudiness, wind, and rain each much below. Barometer considerably above. The season is somewhat backward, vegetation advancing slowly during the month. Corn was mostly planted by the 10th, and some of it is cultivated once at the close. Most of it is a good stand, but growing slowly. The first crop of alfalfa was harvested the last week of the month. It was fine. Wheat continues good. Oats is heading out rather short, but promising well. Pastures excellent. Fruit prospects good. A big crop of strawberries already marketed, and one of early cherries almost ready. Apples have fallen some, but there are plenty left; will be lots of peaches.

Temperature.—The mean temperature was 63.69°, which is .4° below normal. There have been 22 warmer and 17 cooler Mays on our record. The highest temperature was 94°, on the 26th; the lowest, 37°, on the 14th—a monthly range of 57°. The greatest daily range was 45°, on the 4th; the least, 12°, on the 27th. The mean daily range was 28.4°. The warmest day was the 21st, the mean

temperature being 74.5°. The coldest day was the 13th, the mean temperature being 52.5°. The mean temperature at 7 A.M. was 55.61°; at 2 P.M., 76.61°; at 9 P.M., 61.26°. The mean of the maximum thermometer was 79.32°; of the minimum, 50.9°; the mean of these two being 65.11°.

Barometer.—The mean pressure for the month was 28.854 inches, which is .134 inch above normal. The maximum was 29.061 inches, at 7 A.M. on the 24th; the minimum, 28.557 inches, at 7 A.M. on the 22d; monthly range, .504 inch. The mean at 7 A.M. was 28.891 inches; at 2 P.M., 28.835 inches; at 9 P.M., 28.837 inches.

Cloudiness.—The per cent of cloudiness was 32.8. This is 10.2° per cent below normal. The per cent at 7 A.M. was 43.55; at 2 P.M., 33.87; at 9 P.M., 20.97. Three days were five-sixths cloudy; three were two-thirds cloudy; five were one-half cloudy; six were one-third cloudy; seven were one-sixth cloudy; and seven were clear.

Precipitation.—The total rainfall was 2.3 inches. This is 1.78 inches below normal. The table following shows monthly rainfall for 1897, the normal, and departure from normal:—

	Normal.	1897.	Departure from Normal.
January	.79	1.32	.53
February	1.04	1.20	.16
March	1.32	2.19	.87
April	2.76	4.19	1.43
May	4.08	2.30	-1.78
Total	9.99	11.20	1.21

Wind.—The wind was from the south, twenty-one times; southeast, eighteen times; north, seventeen times; northeast, eleven times; southwest, eleven times; east, ten times; northwest, four times, and west, one time; The total run of wind was 6484 miles, which is 1983 miles below the average. This gives a mean daily velocity of 209.16 miles, and a mean hourly velocity of 8.72 miles. The highest daily velocity was 487 miles, on the 19th; the lowest, 61 miles, on the 4th. The highest hourly velocity was 30 miles, between ten and eleven A.M. on the 19th.

The following tables give comparisons with preceding Mays:—

May.	Number of Rains.	Rain in inches.	Per cent of Cloudiness.	Prevailing Wind.	Mean Temperature.	Maximum Temperature.	Minimum Temperature.	Mean Barometer.	Maximum Barometer.	Minimum Barometer.
1858....	12	5.12	...	...	59.95	91	39	...	...	...
1859....	12	9.42	51	SW	65.61	93	42	...	...	...
1860....	12	1.13	27	SW	69.10	97	30	...	...	...
1861....	8	3.76	46	S	64.46	90	42	...	...	...
1862....	8	3.18	30	S	65.38	91	46	...	...	...
1863....	8	3.13	25	S	68.80	91	43	...	...	...
1864....	6	2.29	54	SW	64.80	89	35	...	...	...
1865....	6	2.04	20	S	67.16	90	38	...	...	...
1866....	9	2.83	49	SW	62.18	90	45	...	...	...
1867....	3	3.59	44	NNW	58.73	93	41	...	...	...
1868....	3	1.38	31	S	66.08	88	50	...	...	...
1869....	8	1.12	41	NW	59.11	88	43	28.72	29.05	28.30
1870....	8	.91	44	NW	67.63	93	40	28.73	29.00	28.40
1871....	7	5.07	54	SE	65.05	88	45	...	...	...
1872....	11	6.81	59	SW	58.99	90	30	...	...	...
1873....	10	8.54	61	SW	61.84	86	44	...	...	...
1874....	7	2.98	49	SW	68.88	93	40	28.77	29.01	28.11
1875....	10	2.46	51	SW	64.15	88	29	28.71	29.04	28.10
1876....	7	5.73	54	SW	63.84	90	34	28.71	29.02	28.20
1877....	13	5.20	70	SW	64.16	84	31	28.66	28.90	28.24
1878....	11	4.06	63	SW	62.02	85	34	28.66	29.04	28.24
1879....	7	1.79	39	S	68.58	93	40	28.56	28.85	28.18
1880....	6	3.74	40	S	70.40	94	44	28.56	28.88	28.28
1881....	14	6.67	65	SE	68.25	87	46	28.58	28.84	28.22
1882....	8	5.20	64	NW&S	58.35	86	26	28.59	28.88	28.10
1883....	11	4.83	54	SW	60.74	90	37	28.57	28.94	28.06
1884....	5	4.63	42	SW&E	61.61	85	35	28.55	28.78	28.21
1885....	8	4.30	34	NE&NW	60.75	86	35	28.57	28.83	28.25
1886....	9	4.87	26	E	69.61	100	42	28.55	29.20	28.38
1887....	5	2.54	25	SW	68.53	99	37	28.55	29.20	28.19
1888....	7	2.25	34	...	60.16	88	30	28.88	29.19	28.47
1889....	7	6.15	38	...	63.11	94	30	29.01	29.32	28.53
1890....	10	1.81	27	SW&NW	62.36	92	30	28.79	29.14	28.36
1891....	8	4.79	36	S	60.88	89	30	28.95	29.32	28.50
1892....	12	6.62	51	NW	57.83	90	38	28.74	29.04	28.27
1893....	9	5.73	35	S	60.85	91	31	28.76	29.01	28.25
1894....	7	3.78	25	N	64.32	92	30	28.83	29.21	28.38
1895....	11	3.02	34	S	66.70	101	33	28.76	29.15	28.29
1896....	17	7.41	43	S	68.63	93	40	28.68	28.94	28.40
1897....	8	2.30	33	S	63.69	94	37	28.85	29.06	28.56
Sums	336	163.18	1670	...	256377	...	...	746.89	...	...
Means	8	4.68	43	SW	64.09	...	...	28.72	...	...

WIND RECORD.

	Total Miles.	Mean Daily.	Maximum Daily.	Minimum Daily.	Mean Hourly.	Maximum Hourly.
April						
1889....	9577	308.95	914	63	12.87	44
1890....	6122	197.48	547	57	8.23	44
1891....	769	241.10	552	57	10.34	36
1892....	10092	325.55	632	95	13.56	46
1893....	9192	296.51	597	98	12.35	42
1894....	8115	261.45	578	83	10.89	37
1895....	9077	292.80	772	124	12.30	39
1896....	9858	318.00	480	93	13.25	41
1897....	6484	209.16	487	61	8.72	30
Sums	76208	2451.	...	...	102.41	...
Means	8467	272.33	...	...	11.38	...

A farmer should never be without note book and pencil. He doesn't know what minute he may need it. We ought to use the pencil more anyway, and do more figuring. Sometimes when work piles up ahead of me and I get worried over it, I write off a list for a month of what must be done, beginning with that which demands immediate attention; there drop the worry and go to work and pick one job after another from the list. Sometimes it surprises me to find the list diminish so fast.—*Stephen M. Cox.*

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MANHATTAN, KANSAS, MONDAY, AUGUST 16, 1897.

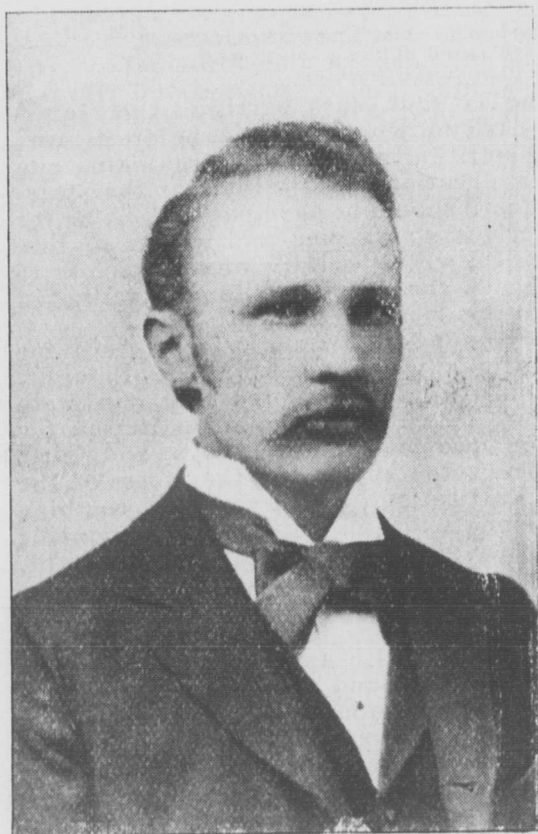
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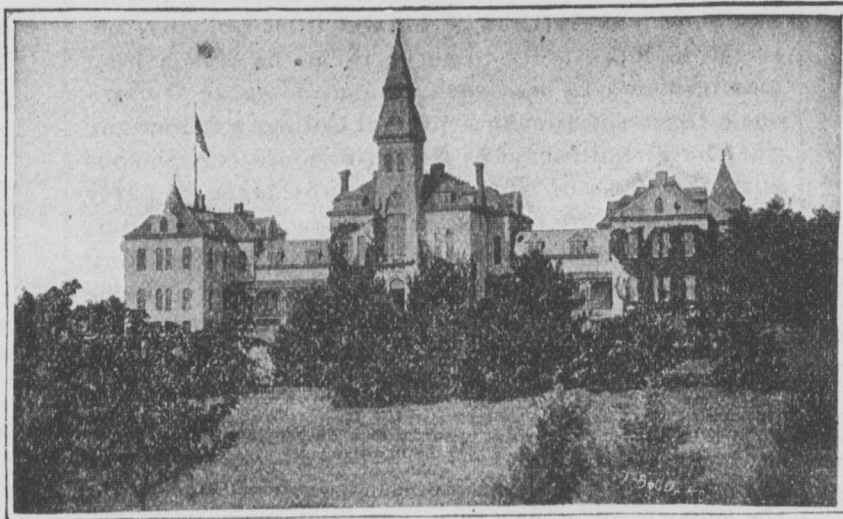
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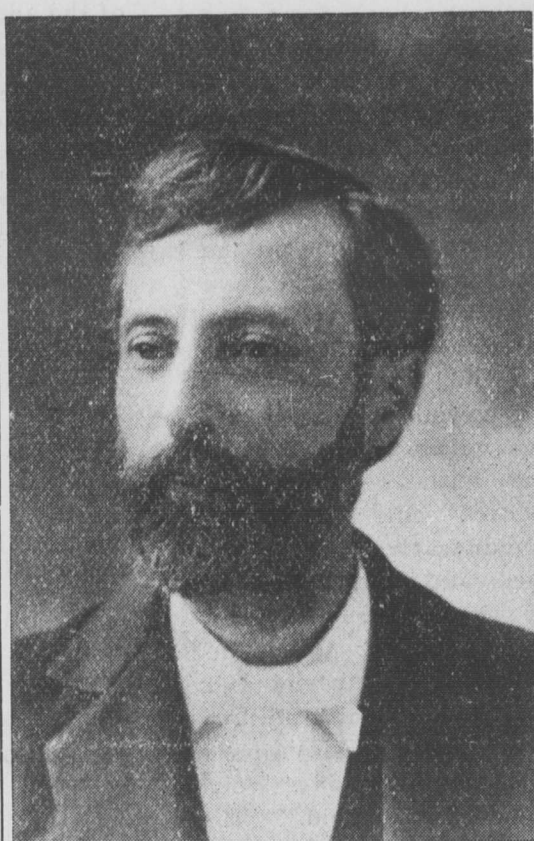
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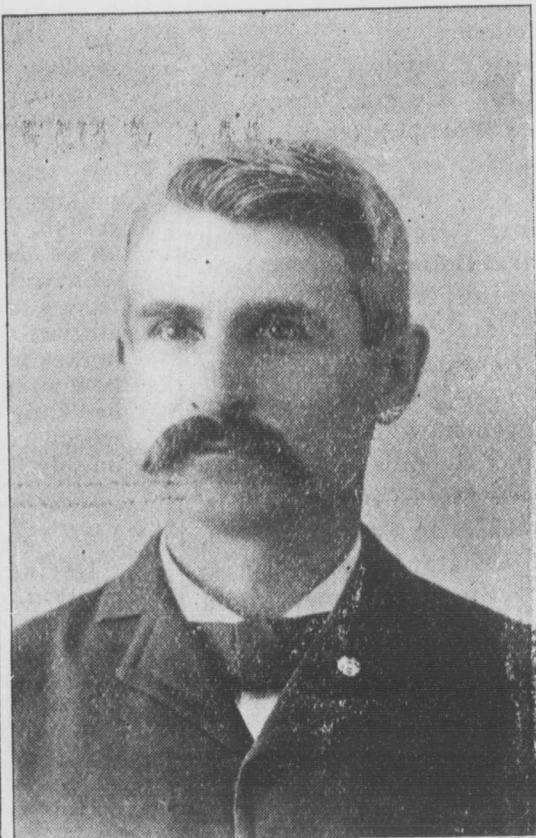
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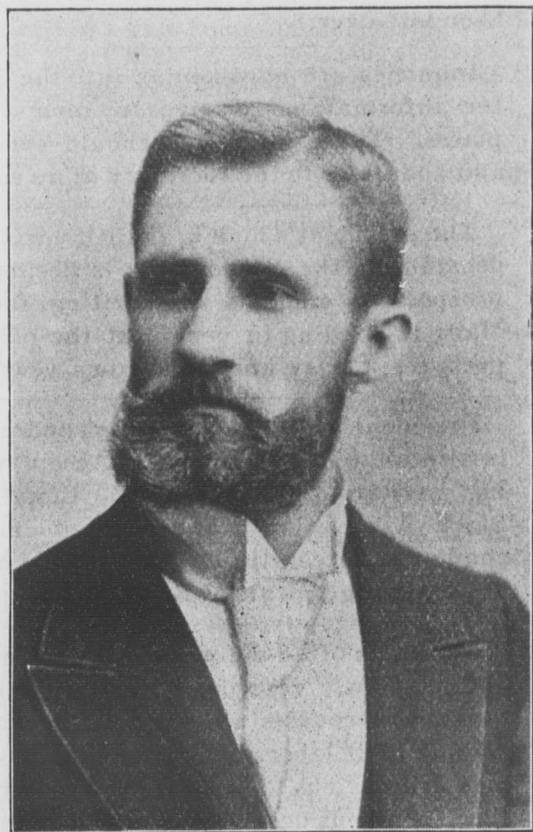


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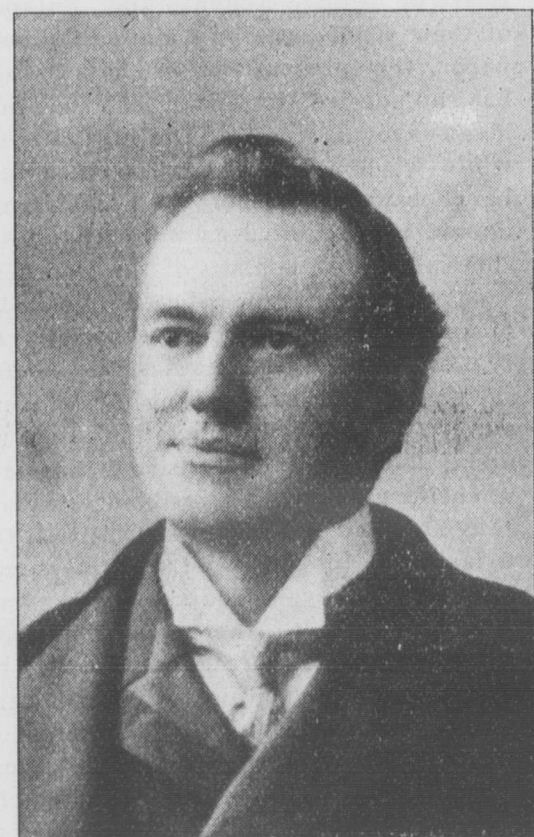
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THE INDUSTRIALIST.

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STATE AGRICULTURAL COLLEGE

EDITED BY THE FACULTY AND STUDENTS.

Owing to the pressure of matter in this issue locals and certain biographical sketches now in type have been left over.

Inquiries are now coming into the executive office for information relative to rooms and boarding places. Those interested should send their names and addresses to the secretary at an early date.

The president's mail is again growing heavy. The demand for the new catalog is decidedly brisk, and prospective students are writing for information. Many are calling in person at the office. The prospects for a busy and prosperous year are excellent.

President Will has recently addressed teachers' institutes at Alma and Erie. Acceptance of a pressing invitation to address the Cloud County Live Stock Association was rendered impossible by a conflict in dates with Erie. His next appointment is at the Grange picnic at Berryton, August 26.

Again, as often before, worthy young people without means are very desirous of entering College or continuing courses already begun and paying their way by their labor. Both young men and young women are anxious to work for their board in good families. Persons desiring such help may secure it, and may also aid young people in paying their way through college, by consulting the executive office at the College.

Professor Ralph Harrison was born in Richmond, Ray county, Mo., March 24, 1866, and moved with his parents to Greenfield, Mo., when a child. He there received a common school education, and was appointed a cadet to the United States Military Academy at West Point in 1885. He graduated from that institution in 1889, was commissioned a second lieutenant, and assigned to the Second Cavalry. Since joining his regiment he has served with it in Washington, Idaho, Arizona, New Mexico, and Kansas. Mr. Harrison was promoted to a first lieutenant November 6, 1896; and was appointed by the secretary of war to succeed Capt. Cavanaugh as professor of military science and tactics at this institution September 1, 1897.

We publish in this number of the INDUSTRIALIST an extended synopsis of the paper read by Mr. A. A. Stewart before the Reform Press Association, and regarded by many as the feature of the meeting. Mr. Stewart speaks from the fullness of his knowledge. He was a member of the college faculty under President John A. Anderson; he was for years editor of the leading Republican paper in Manhattan, and knows what it is to suffer ostracism and actual danger for conscience' sake—the opposition going so far, on the occasion of the change in the politics of his paper, as to threaten him with personal violence should he appear on the street after nightfall. Further, he is intimately acquainted with the present Board of College Regents and can speak truthfully of their sentiments and aims. Commenting on the paper, the present writer has to say: (1) that he has no desire to speak of the outgoing president save in terms of the highest respect; (2) that, while wisdom might have seemed to dictate that, in choosing professors and assistants, only such should be appointed as were able to enter sympathetically into the plans of the Board regarding the "place and importance of economics in the curriculum of an institution designed especially for the education of the industrial classes," so keenly alive were the regents to the importance of securing for each position "the best available talent in the world of scholarship," and so fully conscious were they that most scientific men are informed but meagerly outside the range of their individual specialities, that, from first to last, they insisted on friendliness not to the new economic policy,—a feature which was left to the president and to the teachers of sociological subjects—but to the more general policy of raising the intellectual and technical standard of the institution, increasing the energy and interest of the entire force, and making the College more truly and genuinely helpful to the producing classes; and (3) that there is no doubt in the minds of the board and president that every new appointment has added strength to the institution.

Harrison Kelley.

Harrison Kelley is gone. A patriot in peace as truly as in war; a citizen who placed country above party and above self; a man who loved his fellow-men so sincerely that he braved their obloquy and scorn the more truly to serve them: he was a king among men. In his death Kansas loses an illustrious citizen and the Agricultural College a friend and guardian whose services will grow more conspicuous with the lapse of time and the subsidence of party rage and clamor. Those who knew his character, and were permitted to enter into his plans regarding the educational institution over which he had twice been appointed a regent, do not surmise nor hope—they know that he possessed a comprehensive grasp of the possibilities of such a college and that he believed its usefulness might, by certain modifications in its policy, be greatly enlarged. They know, further, that he entered upon his work of increasing the opportunities of the youth of Kansas, and saving them from the impending doom of industrial slavery, in identically the same spirit in which he led his command against those who would rend the Union to perpetuate African slavery; and in which, later, he shouldered his shot-gun and escorted a little negro girl to the Sunday School whose doors had been shut against her because of the crime of her color.

Because by nature on the side of the oppressed, Harrison Kelley abandoned his party when convinced that the machinery of that party had been captured and its leaders retained by the oppressor. To those who charged that he sought to be on the winning side and enjoy the loaves and fishes, he gave the most effective of all answers: he steadfastly refused nomination to all elective offices including that of congressman and governor; and, when proffered by his old friend, the governor of Kansas, his choice of the highest offices within the executive gift, he declined these also, with their dignities and revenues, and consented only to accept again the modest and unremunerative office of regent in the College endowed and maintained to subserve the interests of the young men and women whose bread must be won by toil. He believed it possible to lighten their burdens and brighten their lives; and this both by disciplining and training them for the work of life and by opening their eyes that they might the more effectively unlock the "gates that are barred with gold." He died in the harness, planning, executing, and sacrificing to serve them; and their children, if not they themselves, will build his monument. We publish in this number the eloquent tribute paid by Regent Hoffman to the memory of his old friend and co-worker.

Henry M. Cottrell.

Henry Mortimer Cottrell has devoted his whole life to the study of agriculture. He was born July 29, 1863, at Mendon, Illinois. When 12 years old he removed with parents to Wabunsee, Kansas, where he went to school in winter and herded cattle and worked on the farm in summer. He graduated from the Kansas State Agricultural College in 1884, having taken, in addition to the regular course, a special course in chemistry. Immediately after graduating, Mr. Cottrell took charge of his father's farm and at the same time carried on a post-graduate course of study in agriculture and agricultural chemistry, receiving the degree of Master of Science in 1887. He and Miss Fannie M. Dorman, a third-year student in the college were married in 1887. In February, 1888, Mr. Cottrell was appointed assistant agriculturist in the Kansas Experiment Station. He resigned this position in September, 1891, to accept a position as superintendent of Vice-President Levi P. Morton's 1000-acre farm known as Ellerslie, at Rhinecliff-on-Hudson, New York, and has held this position since that date. On this farm is said to be the largest dairy barn in the world. Mr. Cottrell introduced into New York a method of corn cultivation adapted from the Kansas method of listing.

While superintendent at Ellerslie, Mr. Cottrell has always had students and graduates of agricultural colleges in his employ, and the farm has served as a means of instruction to the agricultural interests of New York. It will be seen therefore, that as an instructor, as well as a business manager, in the lines with which he is concerned, Mr. Cottrell is prepared by his past experience.

A branch of farming that has not been cultivated in this state as it should be is dairying. Mr. Cottrell's experience and knowledge in that line will enable him to develop this industry in Kansas.

The first instalment of the article, "Value of Forests," by W. L. Hall, on page 176, appeared in the INDUSTRIALIST of May 31, 1897. It is well worthy of preservation in its entirety.

IN MEMORIAM.

Address by Regent C. B. Hoffman, Delivered, by Request of the Deceased, at the Grave of Regent Harrison Kelley, July 26, 1897.

I COME to speak of him and to do him honor as a friend. And what a friend! Generous, noble, courageous, and yet withal gentle and tender, I learned to love and venerate him. I have seen that heart, now so still and quiet, touched to manly tears with the sufferings of the poor and unfortunate; and then again I have seen that brow knit and that eye blaze with virile indignation at the act of the despoiler. Such men as he, whom we today honor, make the nation great. In them the love of comrades and the hatred of wrong and time-serving so blend that men of all ages say, "Behold a great, a noble man!"

It is something over fifteen years since I first met him. We became intimately acquainted soon after, during the legislative session which marked the first serious effort on the part of the people of Kansas to curb the great private corporations, which, thanks to a false and vicious system, own and control the nation's highways and other public utilities.

He and I served upon a conference committee, he from the senate and I from the house. It was the duty of this committee to adjust the differences in railroad legislation, which existed between the house bill, of which I had the honor of being one of the authors, and the senate bill, the product of that sturdy Kansan, poet, and statesman, Eugene F. Ware. Day after day, and often night after night, we met in that conference committee, for the problem was important, and fraught with far-reaching consequences. We were both republicans then, and I doubt not that the earnest and comprehensive examination we gave the subject of private, corporate control of public utilities had very much to do with the position taken by us upon this and other public questions since that time. How well do I remember, even as though it were but yesterday, the sturdy defense of the rights of the people Harrison Kelley made before that committee and in the senate chamber! How well his determination, announced in no uncertain words, that he would do all in his power to bring the grand old republican party, which had victoriously emerged from its combat with secession and chattel slavery, into line on the new, vital questions which presented themselves for solution!

Neither he nor I—and so, many others whom I see here today—had learned the lesson that any political party, as such, never solves but one great, vital question.

As the years came and passed, his voice was heard pleading in conventions, and elsewhere, for the people; but as effort after effort failed to instill life into the political organization of which Harrison Kelley was one of the founders,—and for the principles of which he had freely offered his services, his health, and his life, and whose supremacy had been his ambition and pride,—he left the party, aligned himself with other reformers, and did much, more than I can tell you upon this occasion, to make possible the triumph of the principles which he had so ardently advocated, and which were to him dearer than life.

For this is the signet of the noble man: that he shall have the courage of his convictions, that he follow truth wherever her glorious star may lead, and that he love his fellow man as himself. Intellectually we may err, our theories may be faulty, our solutions inadequate; but when the heart is pulsing with love, when the intent is pure and unselfish, the will determined and strong to do right as we see it,—no matter what the cost, no matter what misunderstandings, what revilings, what pain from sundering the bonds of friendly and political affiliations,—we are in touch with the power that makes for righteousness. Before such a mind we bow as before a prophet and a teacher, whose soul has caught the gleam of a fairer day, and whose words come from profoundest depths. Of such an one the poet truly says:

He sits 'mongst men like a descended God,
He hath a kind of honor sets him off,
More than mortal seeming.

During the last four years, barring a short interruption, my friend, whose body lies before us, was the moving spirit in the work of reorganizing one of the great educational institutions of the state. Alas, that death should be so impatient! Alas for us! Alas for the young men and women of this commonwealth, whose welfare was ever close to his great heart, that he is no longer active in person upon this material plane!

Harrison Kelley foresaw a glorious future for that institution. Day and night he thought, planned, consulted, and labored that our state might nurture a great educational institution for the common people—for the boys and girls from the farms, the shops, and the stores of the state; an institution which would combine all the elements of an intellectual, scientific age with the greatest freedom of thought, the most rugged democracy, the truest equality, and the profoundest sympathy for all the people; an institution for, by, and of the people. He viewed with apprehension and with the insight of a profound thinker, the widening gulf which divides the masses from the classes; he saw the trend of events which endangers the very existence of our republic, and he hoped that Kansas might again lead, as she has led in the past, the cause of the common people to a permanent victory. He realized that in the youth of the land, in the brains and hearts of the rising

[Continued on page 175.]

PRESS MISREPRESENTATIONS RECTIFIED.

Some Sample Criticisms of the Present Administration of the Agricultural College and Replies Thereto.

INASMUCH as the conservative press, for the past three months, has teemed with criticisms, generally baseless, and statements usually false, regarding the reorganization of the Kansas State Agricultural College and the acts and motives of its Board of Regents, the following choice clippings have been collated and printed in nonpareil type. The truth at which these editors have so unsuccessfully aimed follows in brevity.

HOW THE REFORM FORCES OBTAINED CONTROL.

Lawrence Journal: The president [of the Agricultural College] was removed by law from the board, and that gave the entire control into the hands of the Populists.

Without the passage of the law referred to and under the old law, absolutely unmodified, the board would have stood Populists 4, Republicans 3.

THE NUMBER OF REMOVALS.

Topeka Capital, April 23: They simply turn out everybody, president, faculty, and janitor, at a day's notice.

Toledo (O.) Blade: The Populist board of the Kansas Agricultural College has made a clean sweep of the faculty of that institution, from the president down, on political grounds.

Grand Rapids (Mich.) Herald: All the instructors of the Kansas State Agricultural College have been dismissed by the board of regents.

Salina Journal: Under the direction of little Chris Hoffman the regents of the State Agricultural College have removed 41 of the 50 instructors of that institution.

Kansas City Journal: The entire faculty of the college had been dismissed by the Populist board.

Topeka Capital: The new board of supervision,.....as their first official act, discharged every professor and employee, from president to janitor.

Board Statement:—The Board began by removing five professors and superintendents, while the President and two professors resigned, one resignation being independent of the reorganization. At the first June meeting, three other professors, whose cases had been left pending, were removed, and with them two assistants. At the second June meeting another voluntary resignation occurred.

The janitor had died some months before the April meeting at which the work of reorganization began.

WHY MEMBERS WERE REMOVED.

Lawrence Journal: The board called all members of the faculty up on the carpet, and gave them the choice of "working in harmony" with the new board, that is, working to make the school a Populist political institution, and tendering their resignations. Of the 50 or 60 professors, all but nine indignantly refused to become tools for the work of Populism, and their removal immediately followed.

Ottawa Herald: With the other regents of the school.....he [Mr. Hoffman] called the faculty before them and asked if they believed in the Omaha platform, and those who did not were dismissed.....They were turned out because they were not Populists.

Ottawa Herald: The action of the Populist board of regents at Manhattan in removing the president and all but nine professors of the Agricultural College simply because these professors are not Populists is the most disastrous stroke, etc.... He [Pres. Fairchild] is discharged simply because he would not teach Populism. The other 19 members of the faculty, all able professors, are removed for the same reason.

Wichita Eagle: These [the faculty] were called up and asked to agree to the running of the college in the future according to the economic and political ideas of the Pop board. All but nine indignantly refused to become the tools of any political party.

Alma Enterprise: The only reason given for the discharge is that they did not agree politically with the board. Those who were willing to declare loyalty to the new political economy, that 58 is greater than 63, and that 50 cents worth of silver is equal to 100 cents worth of gold, were reinstated.

Humboldt Union: The latest move of Populism in Kansas is the turning down of every instructor and employee in the state agricultural college who would not espouse the cause of Populism. The discharge of nearly fifty men, most of whom had grown up in the institution.....to be replaced by inexperienced and untrained men, only because the old employees would not be driven into supporting a cause for which they had no sympathy, is one of the worst cases of czarism ever perpetrated in Kansas.

Concordia Empire: The new regents admit their [the teachers'] excellent work, but state plainly that the college under their supervision must be run for political instead of educational and agricultural purposes.

H. M. Blair of Scranton, Pa., in Manhattan Nationalist, April 29: The intolerance of the Kansas board of regents in dismissing the instructors in the Agricultural College, because they were not wedded to the abominable political theories of the state administration, is most apparent, and very justly calls forth the condemnation which such bigotry deserves.

Haddam Clipper: Last week the board of regents discharged nearly the entire faculty because they were not in harmony with the fundamental principles of the administration.

Prof. O. P. Hood (one of the republican professors retained) in the Topeka Capital, Friday, April 30, '97, page 4: Fourteen of the faculty of twenty-three were asked to remain. Thirteen assented, and the not unnatural, but entirely unjust, conclusion was that these did not "differ from the board on fundamental principles," or suppressed their principles for the sake of employment. So far as I am aware, the re-employed were not asked as to their "fundamental principles," as implied in the preceding criticism.

Regent C. B. Daughters (republican), in Topeka Capital, April 18: In justice to some of the faculty who accepted reemployment, I will say that they were not required to swear allegiance to the state administration, and did not as prerequisite to their employment, as has been reported. They were, however, I believe, required to say that they would support the new president or at least not antagonize him in the management of the college.

Board Statement: Of the fourteen members of the old Faculty to whom positions were offered, twelve were understood to be Republicans. These were retained because they were believed to be competent to perform the work of their several departments. The tendency in the past to swamp the Faculty with half-educated men has been so marked as to excite comment. Of all those removed, one alone, who himself has been succeeded by an abler man, could claim to have made fairly respectable special preparation for the high duties of professor in a college.

R. S. Kellogg, '96, in Russell Reformer: The facts of the whole matter are these: A few professors and assistants whose incapacity was such as to lose them the respect of the whole student body, have been discharged, one or two others have resigned, though the

board was willing to continue their employment, and a number whose names were given out as ousted will undoubtedly continue in their old places. Both the professors discharged and those retained are of all shades of political opinion, and anyone with any personal knowledge of the subject will not hesitate to say that the first list contains the poorest members of the former faculty, and the second the strongest, most capable, and efficient members of it.

F. J. Smith, '96, editor Russell Reformer: The board of regents of the State Agricultural College have sent out a statement concerning the recent reorganization of the institution, in which they make public the facts that led them to act as they did. We have carefully read the statement, and the insight that we gained during our five years' attendance compels us to agree with their statement.

REGENT HOFFMAN'S CHAPEL STATEMENT REGARDING "FUNDAMENTAL PRINCIPLES."

Topeka Capital, editorial, April 11: In an address to the student body Regent Hoffman said: "The board feels that it is impracticable to conduct the institution with President Fairchild at the head of it and the present faculty as instructors, who differ so radically from the board on fundamental principles. However, they were not good teachers, nor because they have not done their part well, but because they differ with the board."

H. C. Rustmore, in the Capital, April 30, '97: What kills the average reader is just this—why teachers confessedly competent are permitted by a board confessedly non-partisan to retire because they are fundamentally "off" in their "principles," while others as competent and quite as fundamentally "off" as the balance are retained.

Lawrence Journal: The board explained that the members of the faculty were guilty of no wrong, that they were competent and faithful, but the new board feared their ideas of economics were not such as should be instilled into the minds of the youth of the state.

At the time Mr. Hoffman's chapel statement was made, no change whatever had taken place in the constitution of the faculty, other than the refusal of Pres. Fairchild to accept reemployment at the hands of the board, and his declaration that he would refuse reelection if tendered. Regent Hoffman in chapel stated the reasons for the division between the president of the college and the board of regents. He spoke in appreciative language of the work of President Fairchild, but declared that it was impossible for him and the regents to cooperate, because of difference between them on fundamental principles. He spoke not of the faculty but of the president alone. To state the reasons for changes made in the faculty before such changes had been made, would manifestly have been not only absurd but impossible. The preceding misstatement, however, has been infinitely repeated, and has been supposed by many to be truthful.

"POPULIST PROFESSORS ON THE OLD BOARD."

Seeking to prove the tolerance of former boards, such statements as the following have been circulated:

Ottawa Herald: There are employed [i. e. before the recent reorganization] on the faculty of the college ten professors who are rank populists.

As a matter of fact there are understood to have been but two members of the faculty who were not voters for, or at least sympathizers with, the gold standard and other leading tenets held by the Republican party in the last campaign.

THE PROFESSOR OF POLITICAL ECONOMY.

Kansas City Journal: One of the first things which they [the new board of regents] did at the Agricultural College was to discharge the professor of political economy for the sole reason that he refused to conduct his chair in accordance with the Omaha platform.

No professor of political economy was ever discharged from this institution. Last fall, however, it was town talk, in which certain professors freely engaged, that the then professor of political economy would be removed immediately should a republican victory in the state make such a step safe—his offence lying in the fact that in response to a student petition he had read before a public audience certain unsavory and unwelcome truths from the Congressional Globe and other public documents regarding the history of the demonetization of silver. Altho the critics after formal public invitation, did not attempt to controvert the facts, they declared that the statements, tho read from the public documents, were "populistic," and that therefore the crime was punishable with discharge.

THE CONNECTION BETWEEN THE REORGANIZATION AND THE SPOILS SYSTEM.

Kansas City Journal: One object of the board is to make jobs with which to reward Populist strikers. The vacancies in the Agricultural College will doubtless be filled by half-educated Populist country school teachers.

Topeka Capital, April 11, 1897: After July 1, 1897, and until July 1, 1899, the Kansas State Agricultural College will be an institution of populists, for populists, and by populists.

Anonymous in Manhattan Nationalist, May 13, 1897: The changes at the college are the result of trades made last summer. The payment of political debts by honorable (?) men may necessitate the banishment of scientific men, etc.

Leavenworth Times: No concealment is made by the regency that the only reason for this insane and traitorous deed is the desire to appoint Populist teachers in the college.

Board Statement: As to the political aspect of the changes made: on the resignation of the president, a strong Republican, the board appointed in his stead a professor who has declared himself, to boards Republican, Democratic, and Populist, to be an independent in politics.

As documentary evidence in our possession shows, we have endeavored, regardless of politics, to secure for the vacant places men and women of the most thorough equipment. We have elected men to important positions without inquiring or learning their political preferences, and we have elected to the chair of economic science a professor whose views on certain economic questions we know to be widely different from our own. Our sole object, we assert, in effecting the recent reorganization is to raise the standard, increase the efficiency, and enlarge the usefulness, of the institution committed to our charge.

THE BOARD'S ACTUAL ATTITUDE TOWARD THE QUESTION OF SCIENTIFIC FREEDOM.

Board Statement: It remains for this board to state its attitude toward the question of the freedom of science and teaching. We hold the principle of freedom

of science equal in rank and importance with the principles of freedom of thought, of speech, of the press—and of the ballot. We note with deep concern the menace to this and other forms of true freedom through the steady aggrandizement of power in the hands of organized wealth. We find alleged economists in cases prostituting their science to the service of their masters, while men of unquestioned attainments, who refuse thus to distort and conceal important truth, and to sell their manhood for bread, are tried for economic heresy, or dismissed on spurious pretexts, and practically blacklisted; a subservient press concealing, condoning, or applauding the act. The history of Kansas from the days of John Brown until the present demands that this state shall continue the home of freedom; and this board are resolved that in one college, at least, competent men shall be at liberty to investigate, to teach, and to publish, even on economic and social lines, as freely as do their collaborators in other fields of scientific research.

ECONOMICS IN THE REVISED COURSE OF STUDY.

Topeka Capital, April 27, 1897: The damnable feature of the raid on the Agricultural College is the fact that political economy—modern Pop political economy—is to supersede and supplant agriculture as the principal course of instruction of the boys and girls of Kansas farmers. The college is to be molded into a political recruiting station.

An inspection of the course of study as modified by the new board of regents will show what foundation exists for the preceding charge. Agriculture has been increased from two terms to three; horticulture likewise has been increased by one term. Mathematical and mechanical work has been increased from eight and a half terms to thirteen and one-sixth. Economic study has been increased from one term (an amount so inconsiderable as to be almost worthless) to three.

OTHER CHANGES IN THE COURSE OF STUDY AND IN THE CONSTITUTION OF THE FACULTY.

Ottawa Herald: By far the most outrageous, the most flagrant, and the most damaging blow the populist board of regents has yet struck at the great State Agricultural College at Manhattan, happened this week. No parallel for political daring, for brazen disregard for the interests of a great institution, can be found in all political history. The populists themselves stand aghast at it, feeling that it is going too far even for reformers. The board met and decided first to do away with the chair of history. They evidently reckoned that, so long as history is intelligently taught it would interfere with the school as a kindergarten of populism. Youth reading history is not acquiring the proper mental atmosphere to fit him for socialism, anarchy and repudiation. So they decided to do away with history.

All the former historical work of the college is retained, and is supplemented by an additional half term in advanced study of the history of the United States.

[From the same paper and article]: There is among the arts of learning another branch which is a deadly enemy to populism. Populism has an arithmetic of its own and the established mathematics of the period do not conform to it. Hence the board has decided to do away with the course of mathematics. Think of the enormity of the act! Think first of a board of incompetent and ignorant politicians going determinedly to work to revise a college course, built up as the progressive growth of years by men especially well qualified. Think a second of this board deliberately cutting out mathematics and history, the most important branches in a common education.

All the mathematical work formerly given is retained, and in addition the following mathematical and mechanical courses are introduced into the regular course for the first time: drafting, analytical geometry, calculus, materials of construction, advanced descriptive geometry, machine designing, and mechanics of machinery.

[From the same paper and article]: But the monstrous action grows even blacker when you consider what have been substituted for these studies. In the place of the professor of history an "assistant professor of political economy" has been employed; in the place of the professor of mathematics another assistant lecturer on political economy has been employed.

No assistant professor of history and economics has been, or is to be, employed. The economic work formerly taught by the present president is to be taught by the president and Professor Bemis, an economist of national reputation; and the historical work is to be taught by Professor Parsons, of the Boston University School of Law, one of the acutest minds in the country.

[Same]: The only mathematics hereafter will be an imperfect course by an undergraduate while the school will have one teacher of "the new school of political economy," and two assistant teachers. Thus is the great Agricultural College transformed into a mere school of socialism.

Obviously each and every statement in the above series of criticisms from the Ottawa Herald is entirely without basis in fact. As an inspection of the new catalog will show, the editorial from beginning to end is a tissue of falsehoods.

"Enjoys an International Reputation."

Helen Campbell, who enjoys an international reputation as an author of conspicuous ability, as a social and economic writer, and also as an authority in domestic economy, contributes a thoughtful paper on "Philanthropy and the Social Spirit." Mrs. Campbell's two splendid volumes, "Prisoners of Poverty," served to awaken tens of thousands of persons to the frightful condition of the poor in America and Europe. Her remarkably able work on "Women Wage Earners" is regarded as one of the most authoritative and helpful volumes of our time. "Darkness and Daylight in New York" and other able works on social problems have placed her among the leading social thinkers of today, while such practical volumes as "The Easiest Way in Housekeeping and Cooking" have been text-books in domestic economy.

Mrs. Campbell has accepted a chair in the State Agricultural College of Kansas, and with Professor Parsons and Professor Bemis will aid President Thomas E. Will in his labor of building up a great progressive educational institution, which we predict will soon earn a national reputation.—"The New Time" for August.

With Prof. Parsons, Helen Campbell and Prof. Bemis aiding President Will, the Kansas State Agricultural College will soon take rank with the most important institutions of learning in our country.—"The New Time" for August.

STATE AGRICULTURAL COLLEGE CHANGES.

Synopsis of a Paper read at the Semi-annual Meeting of the Kansas Reform Press Association, Emporia, July 20, 1897.

BY A. A. STEWART.

THE writer has witnessed two reorganizations of the Kansas Agricultural College. In 1873 the board of regents decided that the institution was not fulfilling the purpose for which it was established. Its course of study provided long and technical training in the sciences and dead languages, and prepared its students for the so-called "learned professions," instead of making intelligent farmers and artisans of them. It simply duplicated the work which other institutions were doing for the professional classes, instead of doing for the agricultural and industrial masses what was plainly contemplated in the act of congress establishing in each state a college "for training in agriculture and the mechanic arts." The board therefore determined to reorganize the college, and bring it into harmony with the law creating it.

The new president was John A. Anderson, then pastor of a Presbyterian church in Junction City. It was charged that he had no qualifications for the place, that the college would soon be ruined and without students, and that all the patient, self-sacrificing work of its founders was to be destroyed. So strong was the opposition that when Pres. Anderson walked to the chapel platform, a majority of the students hissed him. Meetings were held almost daily by the students protesting against the new administration. Students who sympathized with Pres. Anderson were ridiculed and ostracised; they became the subjects of doggerel rhymes; the college societies abused and vilified them; they could scarcely go through the halls or grounds without being insulted. Pres. Denison told in tears from many platforms how Anderson had forever ruined the institution. The professor of geology, who had spent much precious time of his pupils in the study of bird tracks and leaf marks upon the rocks thousands of years old, denounced Anderson vehemently because he insisted that the boys and girls from the homes of Kansas farmers and mechanics were vastly more concerned about the problem of bread-winning and how to get on in the world than they were about the fossils of the dead past. The professor of botany and entomology boasted that his pupils could rattle off by the yard the Latin names of things about which they studied, though they scarcely had a thought how these sciences could be made to contribute to the future home life and business interests of his pupils. The professor of agriculture had begun the erection of an \$80,000 barn which did not contain a door large enough to admit a load of hay.

The changes at the college were the gossip of Manhattan, local sentiment being at first against the new administration, feeling that "those who have turned the world upsidedown have come hither also." However, there was no effort to make political capital out of the changes, for the Republican party had not then lost its 82,000 plurality; it had control of everything at the college, the opposition was weak, and there was no hope of gaining anything by carrying the matter into politics. Nevertheless, the battle lasted for months, but as the reorganization proceeded it grew in public favor, until finally all were compelled to recognize the wisdom of the new policy. The opposition to this first reorganization was no less bitter and unjustifiable than the opposition to the present reorganization.

It was the purpose of the Anderson administration to develop better farmers and mechanics, to make a class of citizens with vigorous, practical, independent ideas of life. He believed that the masses should be educated toward their work instead of away from it. People made fun of him because he proposed to "teach" farming and gardening, fruit-raising, stock-raising, house-building, telegraphy, printing, carpentry, blacksmithing, sewing, cooking, etc., and to put liberally educated people into all these walks of life. In this work the Kansas Agricultural College was a pioneer; it was work along entirely original lines; it meant educational progress, and the "conservatives" howled accordingly. Anderson believed the philosopher who taught that "he who makes two blades of grass to grow where only one grew before is a public benefactor." It was his aim to have the college teach how to produce the most wheat and corn to the acre, the largest cattle and hogs, and how to do all other kinds of industrial labor in the most skillful, economical and profitable manner.

Pres. Anderson was at the head of the college for six years, and was succeeded by President Fairchild,

who has been there eighteen years, or three times as long as Anderson's term. The Fairchild administration during all these years, has not contributed a single new idea toward working out the problem of industrial education. It has been contented to simply work along the lines laid down by Pres. Anderson. With a magnificent endowment and additional annual appropriations from the general government for experimental purposes, with liberal allowances from the state for buildings and equipment, the Fairchild administration could scarcely have done less than it has done. The growth of the institution since Anderson has left it is but the fruit of the seed which he sowed in the six years that he was placing it upon an industrial rather than upon a professional basis.

For several years radical changes at the Agricultural College have been contemplated, the conviction prevailing that the administration of affairs had become sluggish and conservative, and needed new men and methods. But Pres. Fairchild so vigorously opposed these necessary changes that past boards shrank from assuming responsibility for the contest which their action would likely precipitate. Indeed, Pres. Fairchild has practically dictated the policy of the board of regents ever since he has been at the head of the college. Meeting once in three months, and then only for a day or two, they did not become sufficiently acquainted with details to be confident that they were right about proposed changes, especially if they were opposed by the president. Hence, they were at his mercy. Pres. Fairchild replies that this is a reflection upon the forty men who have been on the board during his administration. But the ex-president is a shrewd politician—a diplomat indeed. He is not pretentious, but he is shrewd and adroit and has skillfully manipulated college matters. He is a man of strong prejudices. He belongs to the old school in educational matters. He is non-progressive. Under his direction things get "set" and would stay that way for a generation if he were undisturbed. These things are not said to reflect upon Pres. Fairchild, but to show the condition of affairs when the new board of regents came into power.

There have been many changes in social, industrial and political conditions during the quarter of a century covered by the administrations of Messrs. Anderson and Fairchild. The world is struggling with different problems. It is now not so much a question of how to make "two blades of grass grow where only one grew before" as how to insure to the producer of even the one blade his rightful share of the wealth which he creates. It is now not so much a problem of production, as it is one of distribution and exchange. If it was proper to teach Kansas boys and girls the solution of the problem of production, why is it not proper to teach them the solution of the perhaps greater question of profitable distribution and exchange of products. The latter problem may arouse more opposition, may more seriously interfere with the preconceived notions of men and books, but it is nevertheless necessary. Indeed those who most strongly oppose an honest study of this subject from the standpoint of the producer have already made a critical, exhaustive study of it from the standpoint of middlemen—either as transporters, speculators or brokers—and are making diligent use of their facts, while the producer suffers accordingly. What greater duty can be laid upon an institution of learning set apart for the education of the producing classes than to render what aid it can in the solution of this problem?

Impressed with the seriousness of present industrial conditions, this great question confronted the new board of regents at the college threshold. It is a political question, but not necessarily a partisan one. Distribution and exchange involve the railroad, the express, the telegraph, the bank, the telephone, the money system—the whole commercial world, in fact. A thorough knowledge of this question involves the study of political economy, political science, political history, so that the great economic problems of the day may be intelligently, peacefully, equitably settled, else they may be arbitrarily settled by revolution. It is proposed to qualify the young men and women who come to the Agricultural College for the intelligent consideration and solution of these questions—not in the interest of the Populist, the Democratic, nor the Republican party, but for the common good of all, and that the rapacious corporate monsters may be controlled which are robbing all wealth creators of their rightful share of the products of their toil. The farmers of Kansas began the study of economic questions around the schoolhouse fire, after their day's work was done. Why should it be thought an evil thing to teach their sons and daughters the well-known and universally accepted truths

of economic science while they are obtaining an education. Such knowledge will have a greater cash value to the oncoming generation of Kansas producers, and will contribute more to the prosperity and happiness of themselves and their children, than any other subject taught in the college.

This was the great purpose that absorbed the thought of those who are responsible for the present reorganization of the Agricultural College, and it was not at all a question of rewarding political friends. Nor was this conclusion hastily reached. One member of the board has lived in or near Manhattan for forty years, and has educated his family at the college; two other members have served a term of three years each, during which time the conviction grew upon them that important changes should be made in the policy of the institution. The present board is a body of strong men. They are proceeding cautiously but firmly. They anticipated the opposition and criticism which their action would arouse, but they believed a supreme duty confronted them, and that a rare opportunity was afforded them to do in 1897 for the Agricultural College and the masses whom it represents what the Anderson reorganization did for them in 1873.

The action of the board does not involve any radical change in the course of study—not nearly so radical a one as Anderson made—but it does require that the management of the college shall be placed in the hands of those who are friendly to the objects sought to be attained. At the first meeting of the new board, last April, Pres. Fairchild soon discovered that it meant to be a board of control in fact as well as in name, and that it had a policy in which its members believed as firmly as he believed in any conviction of his life. He had no sympathy with what he believed the board proposed to do, and he therefore positively declined to be a candidate for reelection and said that if elected he would not accept the place. This at once precipitated the reorganization, which has been so maliciously misrepresented by the Republican press.

At the time of this April meeting, H. A. Perkins, of the Manhattan Nationalist, was correspondent for the Topeka Capital. The Capital refused the report of the proceedings of the board sent by Mr. Perkins, and inserted instead a false and sensational report sent by an irresponsible person. Mr. Perkins was very indignant, bitterly denounced the Capital's report, and sent in his resignation as its correspondent. Later it occurred to him that great political advantage could be taken of the proceedings—that the "wreck of the Agricultural College by the Populists" would make good campaign thunder, and he has since sought to outdo the Capital in his villainous treatment of college matters. It is the Republican program to make the reorganization of the college an issue in the next campaign. Perkins occupies a strategic position, where he can manufacture campaign ammunition for his newspaper brethren, and he has already announced that in consideration for this invaluable service (if the Republicans win), he will expect to be made State Printer! Perkins knows that what he says about the college changes is not true. Recently the writer took him to task for his course. "Oh," said he, "you know this is my bailiwick; I couldn't let pass such an opportunity to make political capital for my party." To what extremities must a political party be reduced when its followers resort to such contemptible methods in the effort to restore its power! In this partisan fight on the new administration at the college, the Manhattan Nationalist, the Topeka Capital and the Kansas City Journal have contested as to which should tell the biggest falsehood, and as usual the Capital has been victorious.

The new administration is pursuing a constructive policy, while its critics have no thought but to destroy, and would actually rejoice if every one of the 700 pupils would turn his back upon the college walls, which—for all they care—might become the home of bats and owls. This is what partisan hatred does for men. This course is especially contemptible when pursued by citizens of Manhattan, in whose vicinity the college expends every year hundreds of thousands of dollars. A community which will consent to such infamous conduct deserves to have the college taken from its midst and located among people who will be loyal to it, notwithstanding they may honestly differ as to its policy and management. Those who oppose the college changes take advantage of the ignorance of the people about the details of what transpires at state institutions. Under such circumstances, the prejudices of people are easily aroused. There has not been a thing done by the new board of regents which cannot be easily defended by one who knows

all the facts. The new policies and new men at the college will, as they become known, quickly disprove the falsehoods of the Republican press; and the college publications—the weekly *INDUSTRIALIST* and the annual catalog—will give reliable particulars as to what has been done.

Prof. Thos. E. Will, the new president of the college, came to the institution in 1894, to take the new chair of economics, which had been established over the protest of Pres. Fairchild. In the class room Prof. Will was so manifestly fair and so clear and thorough that he soon became one of the most popular professors, and the study of economics rapidly grew in favor with the students, notwithstanding it had been misrepresented to them. Pres. Will is splendidly equipped for his important work, and has gathered about him a company of progressive educators whose record is their best defence. Politics is only an incident in the changes at the college. The board of regents has taken high ground in the selection of teachers. One thought has been uppermost—to get the very best men and women that could be obtained for the money at the board's disposal. Of course, they were expected to be friendly to the new policy of the board; otherwise the best policy would fail. Every vacancy created has been filled by an equally good or superior teacher, and some are eminent specialists. It is the intention to put partisan politics out of the college. As proof that the policy of the institution had heretofore been non-partisan, the *Ottawa Herald*, edited by H. J. Allen, formerly of the *Manhattan Nationalist*, recently claimed that under Republican administrations ten Populist teachers had been retained year after year. The *Nationalist* reprinted this statement, which both Allen and Perkins knew to be false. Through my paper, I challenged these men to name two Populist teachers who had ever been connected with the college, and no answer has yet been received. That falsehood was sent out on its mission of political evil just as hundreds of others have gone, its promoters apparently not wanting the truth. This illustrates the extremes to which partisanship will lead men. But the Republicans have overreached themselves in their efforts to make political capital out of the changes at the college, and in the end their course will contribute to their own destruction.

Brethren, the board of regents, together with Pres. Will and his collaborators, are fighting a battle for educational liberty, for educational progress, for educational independence. It is a part of the mighty industrial conflict that is raging throughout the world—one phase of the social evolution which contains the destinies of humanity. As long as plutocracy can control the ministers and the churches, the professors and the colleges, so long will it hold its mighty grip on humanity's throat. Let old reformers recall what the sainted D. P. Mitchell endured in Kansas for conscience' sake, what the equally glorious Gilbert De La Matyr of national fame suffered from his religious brethren rather than be untrue to his convictions. Let us all remember what Myron Reed, Rev. Passmore, and hundreds of patriotic preachers of today are enduring because they prefer to serve God rather than Mammon. Let us not forget the treatment of Canfield, of Will, of Bemis, and of Pres. Andrews of Brown University because they will not do plutocracy's bidding. And by the memory of all these things let us be constrained to rally to the support of those who have undertaken at Manhattan to give the truth of science and history upon the great economic questions of the day, by which the industrial masses are to be emancipated.

Do You Know These Farmers?

We know two farmers with adjoining farms. Both began together with 160 acre farms. One has his farm well stocked, which he endeavors to improve each year by breeding to pure-bred sires. He is a good feeder and sells his stock at the top of the market because of its superior quality. He has good barns and takes good care of his stock, and his house is a home with home comforts, with plenty of books and papers, especially the stock journals and agricultural papers, which give him the benefit of other farmers' experience, and he says is the keynote of his success.

The other farmer has common stock in poor condition as he has poor accommodations for them. He does not make his farm stock pay; he reads no stock journal; and has no use for fine stock—too expensive for him; he can get a grade bull and a grade boar cheaper, that he thinks just as good. He breeds his mares to a jack because it is cheaper than these fine horses. He sells his cattle and hogs at half what his neighbor gets, although they eat about as much. He never feels able to subscribe for stock and agricultural papers; he thinks he knows all about farming and stock, and has no time to read. He knows nothing of the value or merits of the improved breeds of stock.

There are thousands of these two kinds of farmers all over the country. One reads and thinks and keeps abreast of progress and improvement and wins success; the other works and worries and complains at the cheap prices he gets when he persists in breeding to raise that kind. His successful neighbor gives him an object lesson, but he neither reads, thinks, nor sees, and gets no experience from others. There are two of this class to one of the good stock, successful farmers.—*Live Stock Journal*.

THE CARLETON EPISODE.

INASMUCH as certain newspapers have of late manifested a considerable interest in the supposed disestablishment of the Experiment Station in this College on account of the reorganization of the College, a statement of facts may be of interest. Shortly before the second June meeting of the Board of Regents, Mr. M. A. Carleton came into the office of the president of the College and made a statement of which the following is a memorandum, made at the time from his dictation:—

Mr. M. A. Carleton states as follows about his experimental work: "His work is on the physiology and pathology of the wheat plant, and he is working especially on the rust diseases of wheat. He has been carrying on field experiments for about three years, in connection with the United States Department of Agriculture. The first experiments were at Garrett Park, Maryland; the second series at Salina, Kansas; and the third, during the present year, at this place. He desires about one and a half acres of land again, to continue these same field experiments the coming year. Very likely one year will suffice, but it may be necessary to ask for further time next year."

It should be observed: (1) that Mr. Carleton was not connected with the experiment station division at Washington, but with the division of vegetable physiology and pathology, in the U. S. department of agriculture; (2) that he requested as a privilege the opportunity to continue certain work on the College land; and (3) that this work brought no revenue to the College, and was a matter of no special interest to the College, other than because of such scientific importance as in course of years it might chance to develop.

Mr. Carleton's request was presented to the Board of Regents, and by them granted. The following letter was sent to Mr. Carleton under date of July 3:—

Mr. M. A. Carleton, Dear Sir—By action of the Board your request to continue your wheat experiments on College land has been granted. THOS. E. WILL, Pres.

Shortly afterwards, Mr. Carleton appeared in the president's office, and stated that because of the reorganization of the College Mr. B. T. Galloway, chief of the division of vegetable physiology and pathology at Washington, had ordered him [Carleton] to transfer his work from this institution to some other point not named. The president thereupon stated to Mr. Carleton that he could use his pleasure in regard to transferring his work, so far as this institution was concerned; that the land was here to be used by him should he and his chief so desire, and that in case they did not care to use it they certainly were under no obligation to do so. Shortly after, the president of the College started to Minneapolis to attend the meeting of the American Association of Agricultural Colleges and Experiment Stations, and dismissed the entire subject from his mind until his return, almost two weeks later. On reaching Manhattan he found that certain sensational reports had appeared in newspapers relative to the ordered transfer of Mr. Carleton's work to another point, and to the alleged disestablishment of the experiment station. The following are specimens:—

Uncle Sam Sickness.—Grows Disgusted at Regent Hoffman's Crowd.—He Recalls a Good Man.—Carleton Ordered to Stop His Experimental Work.—Comes as a Big Surprise.—Regents were Satisfied but Uncle Sam Didn't Like the "General Demoralization of the College." *Manhattan*, July 12.—The reorganizing Regents of the State Agricultural College today received the most staggering blow yet dealt them, as word came from the Department of Agriculture at Washington to M. A. Carleton, a member of the department stationed here for special work, to discontinue his experiments on account of the general demoralization of the College. Mr. Carleton, who has been carrying on a series of field experiments, was bidden to do nothing more at present and make no arrangements for work during the coming year, for the reason given, verbatim, of "general demoralization of the College." The full import of such a decided step on the part of the government is beyond realization, and will come altogether unexpectedly upon the Board, who in their last meeting gave Mr. Carleton permission to continue his investigation.—*Special in Topeka Capital*, July 13, 1897.

Uncle Sam has become weary of the socialistic and anarchistic doings of the Board of Regents of the State Agricultural College, and has recalled the professor sent out at the expense of the government to make agricultural experiments. The department says that "the general demoralization of the College" renders it necessary and expedient to withdraw government support from the institution.—*Lawrence Journal*, (quoted in *Topeka Capital*, July 21).

The Concordia Empire calls it "The State Political College at Manhattan." The Agricultural Department at Washington seemed to have the same idea when it discontinued the department for special investigation in the agricultural and scientific department in the "State Political College," giving as the reason "the general demoralization of the College."—*Journal*, Russell, Kansas.

The announcement from Washington that Prof. Carleton, who has had charge of the experimental station at the Kansas State Agricultural College, is to be withdrawn will not be a source of surprise to people who are informed of the action of the college regents in turning the institution into a kindergarten for the propagation of Populism, Socialism, and a dishonest system of finance. It appeared to the department at Washington that it would be an inexcusable waste of time and money to continue experiments at a school that had gone out of the business of teaching agriculture into that of teaching politics.—*Kansas City Journal*.

The president found, however, that in his absence the secretary of the College, Mr. Graham, had written Mr. Galloway at Washington, and had received the following letter in reply:—

United States Department of Agriculture, Division of Vegetable Physiology and Pathology, WASHINGTON, D. C., July 19, 1897. Mr. I. D. Graham, Secretary Kansas State Agricultural College, Manhattan, Kansas.

DEAR SIR:—Your note of recent date in regard to the work on cereals and cereal diseases being conducted by this department in cooperation with your station, is at hand. In answer to your question as to whether Mr. Carleton, the assistant in charge of the work, has been recalled to Washington, I have to say that such is not the case. In planning our work for the current year it may be necessary to make some changes; but if these are made at all, they will be prompted wholly by circumstances here,

which in no way affect the interests of your College. In the past the work we have been able to do through the cooperation of your institution has been thoroughly satisfactory, and we can see no reason why the same should not hold true in the future.

Very respectfully,
B. T. GALLOWAY, Chief of Division.

He found also awaiting him the following telegram from Secretary Wilson:—

It is not true that Prof. Carleton has been withdrawn from your college by the Agricultural Department. We desire him to go on with his work. JAMES WILSON, Sec.

On July 26, Secretary Graham received the following letter from Secretary Wilson:—

United States Department of Agriculture, Office of the Secretary, WASHINGTON, D. C., July 22, 1897.

Mr. I. D. Graham, Kansas State Agricultural College, Manhattan, Kansas.

DEAR SIR:—Your favor of the 20th instant is at hand, and the clipping inclosed. It is not a fact that we have withdrawn the \$15,000 from the experiment station in Kansas, nor have we ever thought of doing it. I recognize that the people of Kansas have a perfect right to make such a faculty as they see fit. The only justification that we would have in recommending to the proper official that the money be withheld would be the devotion of it to uses not intended by law. I have no evidence whatever that any such use of the money has been made. I may say further that we do not look into the faculties of the states as far as our relations with them are concerned. Kansas has a perfect right to adopt whatever political ideas she may see fit, be they Republican, Democratic, or Populist. So long as the money appropriated by Congress is used along the lines intended, the indorsement of this department will be cheerfully given.

Very truly yours,
JAMES WILSON, Secretary.

The two letters and the telegram given above having appeared in Kansas papers, and having sufficiently answered the statement that the Experiment Station was to be discontinued and its funds withdrawn, the *Manhattan Nationalist* for July 29, appeared with such statements as the following:—

[Certain persons] "are quite busy howling about the \$15,000 appropriation. No one but ———, and he did not know better, ever stated that the department had withdrawn the appropriation."

The question of the appropriation is of course the question of chief interest to the College. The mere temporary presence of Mr. Carleton here, of which very few about the College had ever even heard, was a matter of slight consequence. That the wish that the appropriation might be withdrawn and the College thereby crippled was the father of the thought may be inferred from such quotations as these:—

The *Leon Indicator*, edited by C. R. Noe, member of the Board of Regents: "The general government sends \$38,000 to Kansas this year for the support of the State Agricultural College. If that institution is to be used as a political football, is there not a possibility that Congress will repeal the laws making these liberal provisions for scientific experiment and original investigation?"

The *Kansas City Journal*, asserting the reorganization to have been on purely political lines: "Let us agree for the moment that such a procedure is legitimate. Having so agreed, the people of Kansas could not offer even a murmur of protest if the national government, now controlled by Republicans, should shut off the appropriation for the maintenance of the College, and force it to close its doors...."

Ablene Reflector: "Dickinson county parents will be very foolish to send their children to the Agricultural College while it is run as a school for the promulgation of Populism.... There are plenty of good schools where education is the first requisite, and no young people can afford to waste time on any others."

As a matter of fact, there is every reason to believe that the College is on excellent terms with the head of the department of agriculture at Washington. Secretary Wilson was a member of the faculty of the Iowa State Agricultural College, and many letters were written from this institution to that inquiring in regard to the qualifications of candidates for positions here. The president has recently spent a day at the Iowa State Agricultural College and was most hospitably received and courteously entertained by the president and members of the faculty of that institution. The newly appointed professor of horticulture is a graduate (M. S. A.) of the Iowa Agricultural College, and was appointed largely on the recommendation of Secretary Wilson. The entire list of candidates for the agricultural chair was submitted to Secretary Wilson with the request that he indicate some of the strongest. Those who imagine Mr. Wilson would willingly and consciously aim a blow at a sister institution in a neighboring state are doubtless unacquainted with the solid business sense of the present head of the agricultural department at Washington.

The Board Statement.

The question has been asked by some, why the board, if it had a statement to make, should have waited instead of making it at once. The answer is not far to seek. In the first place, the board meeting at which the work of reorganization was begun occurred early in April, while commencement did not come until the 10th of June. Between these two dates there was a period of over two months during which the College was in session. The students were then under the instruction both of professors whose tenure had been severed and of those who were to remain. Naturally, at the best, relations were strained and but a spark would have sufficed to ignite the tinder ready at hand. This spark a truthful statement would have supplied. So strongly was it felt by some that the division of the student body into partisans of the new and old should be prevented, that it was earnestly advised that the beginning of the work of reorganization be deferred until commencement time. However, certain pro-

fessors who foresaw the change urged in the interest of those who might be displaced, that the work if done at all should be done at once. This view prevailed. At the same time the board decided to use its influence to prevent the stirring up of strife in the College during the spring term, and hence to endure abuse and misrepresentation for a time. In the second place, the board realized that to make a full explanation of the reasons for the reorganization involved the making of specific charges against the outgoing professors. This was by no means a pleasant task. Had it not been for the persistent misrepresentation of the actual motives of the board, and the constant challenge on the part of a portion of the press that the reasons be given, this painful step might have been avoided.

The following abstract from a letter written under date of May 5 by the president-elect to a New York City editor corroborates the above:—

Thus far the board and its friends have not felt free to go into print and make certain disclosures, owing first to the fact that they feel no desire to handicap or cripple those going out from the faculty; and, secondly, to the fact that the outgoing and incoming administrations are closely associated at present in the College, and in the interest of the institution an open war is of all things one to be avoided.

Finally, certain members of the board possessed an abiding faith in the social value of agitation. They believed, like Wendell Phillips, that still waters grow stagnant; and that only by an occasional thorough stirring can such waters be healed. Hence they welcomed criticism: the faster it came the better they liked it. They preferred, therefore, to give the critics for a time practical possession of the field, realizing that a reaction of sentiment was inevitable, and that only after this reaction had set in would certain persons listen to reason. How truthful was this view may be inferred from the fact that in this town and county, the stronghold and hotbed of college and political conservatism, the reaction is already marked; and prominent Republicans are quietly informing the regents that nothing better could have happened to the College than such an overhauling as it has recently experienced. The time actually chosen, namely, the date for the change in the administration, seemed to be the most appropriate if a statement was to be made. That the board were still, at the time of making it, disposed to shield the professors, is shown by the fact that the criticisms are couched in general language. At the same time, the board aver that they are "prepared to substantiate" their assertions. Should the newspapers that have hounded them thus far, and have taken it for granted that the outgoing administration could do no wrong and the present board no right, still insist on specifications, they may rest assured that the specifications are at hand, and can and will be produced.

That the shot fired by the board when it believed the time to be fully ripe struck home, may be gathered from the efforts of a hostile press to break its force. It is claimed that the board did not authorize the statement. The following minute from the proceedings of the board at the second June meeting should settle this point:

Moved that the following statement relative to the recent reorganization of the Kansas State Agricultural College be adopted and published. The motion was carried.

It is claimed next that the statement was not sanctioned by a majority of the board. The curious, however, may satisfy themselves on this point by a visit to the executive office of the college, where they may find the signatures of a majority of the board affixed to the obnoxious document. Two regents maintain that they never heard of the statement. Had they not deserted the board meetings, apparently if not avowedly for purposes of obstruction, they would have had ample opportunity both to hear of it and to examine it line by line and word by word. As the last blow with which to clinch the evidence that the statement was issued without authority, the following note, said to have been written by Mrs. St. John in reply to the query of a certain critical editor, is triumphantly pointed to:

I would say the statement you refer to was never presented to the board while I was in attendance on its sessions, and no one was authorized to sign my name to it.

All of which is perfectly true and perfectly innocuous. The reason it was not presented to the board while she was in attendance was because she left at the close of the second day, in accordance with her announcement at the beginning of the session, to accompany a sick daughter to a more comfortable climate. The statement was passed by the board after her departure. No one was authorized to sign her name to it, and her name is not signed to it. Mrs. St. John doubtless answered categorically the questions propounded to her by the inquisitive editor without caring to go into particulars for his enlightenment. She will, however, of course admit freely and without reservation to one not assuming the role of her father confessor that she had in her possession a copy of the statement some days before the meeting of the board, that she was present at a committee meeting of a majority of the members of the board at which this statement was slowly read, and carefully examined point by point, and that she did participate freely in the discussion accompanying the reading.

Unpleasant, then, though the conclusion may be, it is nevertheless true that the statement was examined and signed by a majority of the board, that it was regularly authorized by the board, that it did go forth by their order, and that if any failed to see it it was the fault of no one but themselves.

COLLEGE CONSERVATISM.

BY PRESIDENT THOMAS E. WILL.

THE bane of the college is its conservatism. Inertia is a universal property of matter; similarly it seems to be a property of man, and especially of men grouped together in organizations and institutions. The unattached and independent individual, if progressively minded, may go forward. But the member of the organization who would progress is too often held back by his fellow members, or cast out as a disturber of the peace. Allowing for exceptions, institutions for higher learning suffer even worse than some other institutions. Dwelling upon the past inculcates a veneration and love for the past, and an unwillingness to turn the back upon it. The study of books often begets a passivity and receptivity of mind utterly antagonistic to the active spirit that bids the cloistered solitary shake off his sloth, rub open his eyes, and face the realities of a living present. Conventionalism at times is raised almost to the rank of the supreme law of college life; but conventionalism left to work its will, as the histories of Egypt and Babylonia, India and China, mutely but eloquently testify, is death to progress. Professional heredity, the systematic promotion of student to fellowship, of fellow to instructorship, of instructor to professorship, is a species of in-breeding, from which only eternal vigilance can protect an institution for higher learning. But in-breeding means to a college, as surely as to a herd of cattle, stagnation, retrogression, and decay.

Supported by endowments, maintaining often a government of its own which is practically independent of the local civil government, a survival of the *immunitas* of the middle ages, and making of the institution largely a state within a state—the college community often becomes isolated from the life of the people about it until, instead of a bond of sympathy being established between collegians and citizens, there develops a class distinction between "dudes" and "muckers," between students and "Philistines"—a warfare between "the gown and the town." And the contempt that the institution comes to feel for its workaday neighbors may extend until it embraces the entire working world.

As evidences of college conservatism note the following:

Our college system finds its roots in the middle ages, before the birth of the modern world and the modern languages. When universities arose, the Holy Roman Empire was still the world, and its language the language of the world—Greek holding second place as the language of a philosophy once virile, but, with the dominance of northern barbarism, largely incomprehensible and dead. Ability to speak and write Latin was as necessary in the medieval university as is the ability to speak and write English in the common schools of Kansas; hence the student's scholastic education began with the study of Latin; and the use of Latin, thus begun, became coextensive with his intellectual life. To drop Latin was to drop literature, science, art, scholarship—in a word, to lapse into the barbarism from which his ancestors emerged.

The world moved, however; the modern nations were born: Germany, France, Spain, Italy, Holland, and above all England, waxed and became powerful. Each developed a language of its own, marked by elegance or strength, or whatever quality chiefly characterized the people to whom it was native; and as a vehicle for the transmission of ideas, whether orally or in writing, meeting perfectly their wants; for no language save their own fits or can fit any people.

Did German colleges now substitute German for Latin as the chief means of oral and written instruction, giving to the superseded language a secondary or still lower place? And did the French and Spanish and Italians and English similarly now put their own highly developed mother tongues to the front, and seek to perfect their students in the language of the people from whom they had sprung, and to whom they should return? On the contrary, college and university looked with contempt on the national language, punished students for using it, and by all the force of institutional discipline forced the plastic thought of their day into the rigid molds of a language foreign and dead. And in this year of grace 1897 there can be found, not simply in Europe, once pre-empted and so long dominated by the Roman eagles, but in America, and even beyond the Mississippi, colleges and universities not a few where the musty Roman tradition—now and here an incredible anachronism—still survives; and the student is even yet taught that the chief end of his preparatory and collegiate course is the mastery of Latin, mixed with a smattering of "English studies."

But the Latin fetish furnishes only one count in what might truthfully be extended into a lengthy indictment. It were easy to expose the absurd methods whereby in many "leading" institutions the attempt is made to teach a student language by teaching him not the language itself, but a mass of facts about language; and forbidding on pain of disgrace the employment by him of methods whereby some of the greatest linguists, after emancipating themselves from the slavery and deadening routine of the class room, have been enabled to enter into the spirit of a foreign tongue.

We might speak of the ignorance of pedagogical truths and principles, now the veriest commonplace in teachers' institutes, which great college and university men often innocently display, to the astonishment of the country school teacher who enters the higher institution of learning. Or we might enlarge on the disposition of universities to side with the conservative classes in all great practical and public issues—a disposition which made it the most natural of things that Oxford should become the headquarters of Charles in his opposition to the demands of the English people as represented by their Parliament; and that has given rise to the declaration, perhaps hardly an exaggeration, that Oxford, viewed

in the light of history, has for centuries been on the wrong side of every great question before the English people; and we might instance the fact that only after he had been repudiated by Oxford for the manifestation of certain liberal sentiments was Gladstone able to say to the electors, "Unmuzzled I stand before you," and to enter upon his marvelous parliamentary career as leader of the House of Commons.

It is also a fact that so paralyzing to true intellectual independence and growth have the methods of leading educational institutions often been found, that some of the greatest minds have looked back upon their college years as years of repression and malformation; feeling that their alma mater has been to them not a source of inspiration and uplift and stimulus to symmetrical growth, but a strait-jacket or a miasmatic swamp. Bacon left the university in disgust and refused to complete his course. Herbert Spencer steadfastly refused to attend a college or university: he exposes in his "What Knowledge is of Most Worth" the absurdities of the English higher curricula, and congratulates himself to this day that throughout the formative period of his life he "successfully resisted" the stultifying methods of those who would have been his teachers. To note a modern instance, the writer has within three days conversed with a highly intelligent gentleman, a distinguished alumnus of a well known American university, who years after his graduation felt constrained to declare to his college president:—

My time at your institution was wasted, and worse than wasted; I asked for bread and you gave me stones; you sent me forth with inflated notions of the value of your course, and with false ideas of life and of my position in society. You sent me into a working world, a world pulsing and throbbing with energy, and calling for both trained minds and trained hands, and I found myself unable to apply myself to any useful work. Expecting to see the world at my feet, I found myself incompetent, helpless, contemptible, compelled to begin at the bottom and to do my first works over.

As intimated, the most serious result of the conservatism that continually threatens to paralyze the educational institution is the failure of the institution to prepare the student for the world in which he must live and work. Relatively isolated, and maintained by streams from a seemingly inexhaustible spring, the college tends to lose touch with the outside world; it fails to realize that society is a thing of growth and progress, that is, that "the world moves;" it fails to realize the need for changes in its methods, and hence it fails to change them. In consequence, the college is in time left high and dry like a stranded ship, while the tides of life flow by, communicating to it and receiving from it no suggestion and no impulse.

The modern college can be understood only by him who studies its origin in the middle ages, and traces its subsequent growth. Medieval society was classified into warriors, priests, and commons. The warriors defended their society, and plundered neighboring societies; their work was temporal. The priests guarded the souls of men; their work was spiritual. The commons fought the battles and performed the drudgery for their superiors. The warriors, being active, despised books; the priests, living a quiet and secluded life, and basing their hopes for eternity on the "it is written," naturally became the scholars, and to them fell the work of educating the few who possessed the opportunity to study and cared to use it. Education being in the hands of the priests, naturally assumed a priestly character. There was no apparent occasion for educating for the world, for little education seemed to be required for the work of pillaging a band of travelers, fighting with bill and bow, and digging the ground with a sharpened stick. Besides, the world was cursed, and one's education should properly lead not to it but away from it. Education thus came to be a preparation for the priesthood, and later for law, medicine, teaching, and the other callings that spring therefrom.

Meanwhile, however, at the base of the cliff on which towered the feudal castle, in the Roman villa, or beside some waterfall or harbor, there was growing up the tender shoot that would rend feudalism asunder. It was the town. In it were developing the modern arts of production, and here arose the guilds of merchants and craftsmen who in time would stand as formidable orders in society. The arts of hand production demanded the education and training of producers. Did they receive it? Not from the schools and universities. The idea, if ever suggested, would have seemed preposterous to the educators of the day. What had schools and universities to do with the teaching of burghers and apprentices to make clothes and baskets and tables? Let them teach themselves! And they did. Under the system of masters and apprentices, which developed independently of the regular educational institutions, workers were taught to work, and employers were taught to organize and direct their workers, and to dispose of their products. In time the tender germs of the modern industrial system had become a mighty forest which, as it grew, rent the feudal crust of society into ten thousand fragments, which the French revolution and the Napoleonic wars swept into the sea.

But a century has passed, and scarcely yet has the scholastic world awakened to the fact that the priestly education of feudal times has become, in the world of modern industrialism, a hopeless misfit; nor have educators as a body turned an attentive ear to the demand from uncounted voices that education be made practical, and that the student be fitted for the various activities of life. Some daring innovators have indeed heard the demand, and recognized its propriety. They have attempted to meet it. Not, however, as a rule, by reorganizing the institutions already in existence and compelling them to do the work which should constitute their chief reason for existence. So great has been the hostility to change on the part of those in charge of the old foundations, that in most cases the line of least resistance has lain in a different direction. New expenditures instead have been made; new plants erected; and new institutions for "business education," "manual train-

ing," "industrial education," etc., have been established, and are now slowly, one hundred years and more after the demand for them became imperious, attempting to supply the wants of the world of work.

Meanwhile, the mechanical age has been achieving its triumphs and working its miracles. The power of steam has been evoked; lightning has been chained; and these two monsters have been harnessed to the engines which the geni of the modern world have devised. In comparison with the resulting products, the wonders of the ancient world are commonplace. Works impossible to an army of hand-workers are now performed with ease by machinery. Today the earth is ravished, forests are swept away like harvest fields; streams are bridged, mountains tunneled, hills leveled, valleys filled, the ocean made a familiar highway, and antipodes are enabled to converse. "The unsearched might of man," when coupled with nature's forces, has made possible an expansion of industry rivaling the expansion of a gas, and has resulted in an industrial output, actual and potential, great enough to enrich the race, to make of want but the remembrance of a hideous dream, and to render possible a social state by the side of which the age of Pericles would be contemptible.

But at a time when our nation might be living in "White Cities," with leisure for art, science, philosophy, and social life, the mass of those who are permitted to work and thus earn their right to live are but little raised above the level of slaves. Yet they daily tremble lest the opportunity so to live be denied them, and they be forced to join the army of three hundred thousand tramps, whose status is below even that of the slave. Stranger still, at the very moment that men clamor for bread and for the privilege to produce it, the earth, even where most valuable, lies unused; the machinery of production stands still; the three productive factors are simultaneously unemployed; and men perish for want of the products that these factors might put forth.

Why the deadlock? The explanation is simple. The fundamental principle of modern biology is the struggle for existence and the survival of the fittest: that is, the survival of the strongest and best adapted to the existing conditions. The fundamental principle of orthodox political economy is self-seeking. Each is taught that his "one big duty" is to "look out for number one;" and that to fail in the performance of this duty is a crime. In harmony with these principles men called civilized have engaged in a contest rivaling in savagery the contests waged on the sands of the Roman arena. The struggle has been a struggle to the death.* Some, of course, as in all struggles, were bound to win. Who were they? Naturally, the fittest. And in what would their fitness consist? Simply in adaptation to the conditions in which they found themselves. Shrewdness, quickness of mind, willingness to subordinate development along all higher lines to the one supreme end of money grabbing, ability to secure special class legislation whereby the beneficiaries might clothe themselves in the armor of monopoly and more easily win in a contest with naked men—these are some of the qualities that have enabled a relatively small group to possess themselves of the city sites which in time, by social growth, have come to outrank in value the mines of Golconda; to seize upon city franchises, and upon the nation's highways and means of communication; to shift their taxes upon the shoulders of those unskilled in the art of tax dodging; to build up national and other debts, obtain possession of the bonds at a low rate, and then by monetary contraction inflate the value of these bonds; so to manipulate the stock exchange that, whether stocks rose or fell, they would be on the winning side; to contrive a system of "options" and "futures" whereby a few grain gamblers might appropriate the profits of an army of farmers; to devise and establish by law a system of "honest" money and banking, whereby, as water flows down hill, the wealth of the people would flow to a few centers to be appropriated by those in possession of the reservoirs; and, finally, to bring about the concentration of industry into a constantly diminishing number of gigantic trusts, which, tho desirable in themselves if owned and conducted by the people, become in the hands of private, lawless "buccaneers of commerce" an agency of exploitation and despotism rivaling the armies of Napoleon.

The result is what might be expected. The United States has become or is rapidly becoming practically the private estate of a few grand proprietors.† The economic effect of this concentration, not only of industry (which is desirable), but of ownership (which is not), is far reaching. Tho often emphasized, the business world and the economists whose business it is to explain our industrial system and its workings are as a body still blind to it. Such concentration of industry and ownership means

nothing more nor less than death to the market both for goods and for labor. Goods are produced only for buyers; these may be grouped roughly into rich and poor. The rich can consume and waste but a trifling fraction of what our prodigious industrial mechanism is able to produce. They will buy no more than they can consume and waste. The poor could consume untold quantities of products, but they can buy only the amount permitted by their shrunken purses. When goods cannot be sold, men would be foolish to produce them. When men cease producing, workers cease drawing wages. When wages stop the market is still more contracted; and dealers dependent upon wage earners' trade fail, and themselves join the already swollen ranks of wage earners. With slight occasional backward hitches toward good times, society, smothered in its own wealth privately appropriated, moves steadily toward the swamp of chronic hard times, marked by general overproduction, industrial stagnation, and poverty alleviated only by charity.

That such is the trend of modern society, any sane man capable of consecutive thought and willing to look about him should be able to see. That in such a state of affairs nothing can yield relief that does not destroy the concentration of ownership (not of industry), and transfer the unused purchasing power from the few in whose hands it stagnates to the many who perish for the lack of it, follows as an obvious corollary. Yet what school of "scientific" economists has as yet caught the first glimmer of this fundamental truth? Or are we to understand that such truth, tho recognized, must be suppressed by these economists, because "contrary to the views generally held by the friends of the universities" in which they teach, and because, if freely promulgated, such teaching might result in "loss of gifts and legacies," thereby interfering with the "pecuniary support which is requisite to enable" these institutions "to prosecute the grand work on which they have entered?" It is quite conceivable that to a private proprietor of a highly successful trust casting about for colleges and universities to endow, such "views" might seem even more "atrocious" than the proposal to restore the ancient monetary system of the United States without waiting for the consent of a country whose interests are diametrically opposed to such a restoration. In any case, allowing for possible rare exceptions, the Egyptian sphinx is not more mute than are our American colleges and universities regarding this overwhelming truth.

Meanwhile, tho industry stagnates and college graduates are a drug on the industrial market, colleges run on the old "classical" lines still strive to prepare the youth for the battle of life by "disciplining his mind" with Latin rules, Greek mythology, and historical dates; while colleges conducted on the more modern principle pride themselves that they are rendering the highest service to their students by teaching them to produce, that they may go forth into a world now badly overstocked with producers and compete for an opportunity to aid in pushing still further the work of general overproduction.

And now, when it is proposed as an educational policy to discipline the mind, not it is true by "gerund grinding," but by teaching the student to think for himself, and to free himself from a superstitious veneration for dead "authorities;" to train the hands for useful work; and, in addition, to enlighten the understanding relative to the conditions which, as by an impassable barrier, shut off the worker from the opportunity to work, or deprive him of his reward when that opportunity is found and used; the owls and bats who are the direct scholastic descendants of the savants who insisted that the earth, despite Columbus, Copernicus, and Galileo, was flat; that the doctrine of the circulation of the blood was absurd; that an ocean steamship was clearly impossible for the demonstrable reason that no vessel could carry the coal requisite for the supply of steam necessary for an ocean passage; who regarded Charles Goodyear as a lunatic, and Morse and Cyrus W. Field as tiresome cranks; who denounced as atheists and dangerous characters the geologists who disproved the "six-day-creation" theory, and the biologists who superseded the dogma of special creation with the truth of evolution—all of these as a matter of course again awakened from their slumbers long enough to reëcho the familiar cry that the very foundations of truth are now to be undermined, and the social edifice itself leveled to the ground.

But the world will continue to move despite the owls and bats.

A Baker Student: "I congratulate you upon the addition of Prof. Weida to your faculty. I attended Baker, where Prof. Weida was engaged last year, and he certainly was very proficient in his line of work."

Reviewing the work and methods of the teachers of the Wabaunsee county institute, the *Alma Signal* says: "Prof. Olin, with his history class, is doing excellent work. Underlying principles are taught in a way that is attractive and by such methods that they become firmly fixed in the teacher's memory."

The new Domestic Science Hall is growing rapidly. The masons will finish the main story within two or three days, and the carpenters have commenced the laying of the floor joists of the second floor. We are in position to observe that Prof. J. D. Walters, who is superintending the work, is among the first on the ground in the morning and the last to leave in the evening.

FOR SALE, RENT OR EXCHANGE.—Farm of 110 acres, within 15 to 25 minutes' ride (3 miles) northwest of the College. Large orchard, two-story stone house, (40x40.) If not sold, would put house in first class condition for good, permanent tenant.

A. J. WHITE, Manhattan, Kansas.

Ernest E. Faville.

The new professor of horticulture and entomology, Ernest E. Faville, was born in Mitchell county, Iowa, and spent his early years on the farm, where fruit growing as well as general farming was carried on. He attended the common schools of that state, and prepared for college in the Cedar Valley Seminary, Osage, Iowa. He entered the Iowa State Agricultural College, at Ames, in 1889, and completed the four years' course in agriculture, with the degree of B. S. A., later taking the degree of M. S. A.

While at Ames he studied under James Wilson, now secretary of agriculture at Washington. He also took a course at the Michigan Agricultural College. Mr. Faville comes to us from Nova Scotia, where he has been director of the Nova Scotia School of Horticulture. He organized the institution under the direction of the Nova Scotia legislature, and has had charge of it since its establishment in 1893. Under his management it is growing into a strong institution. He was sent by the Fruit Growers' Association and the government of Nova Scotia to Europe in their interest, and while there was afforded the opportunity to investigate and study European horticulture, giving considerable attention to methods employed in the various agricultural and horticultural institutions of the several countries he visited.

As an institute worker Prof. Faville has had a large experience in the provinces of eastern Canada; a part of his work there, as of members of the faculty here, being to appear before audiences of farmers and give them the benefit of the experimental work of the institution. He has also been a regular contributor to Canadian agricultural journals. During vacation periods he has visited the leading fruit sections of the eastern part of the United States and Canada.

IN MEMORIAM—[Continued from page 170.]

generation, must be found the guardians of liberty and progress, and that it was essential that our educational institutions should be free from the pressure which organized greed has too often in the past brought to bear upon the intellectual training of the young. With an indomitable will and a peerless courage, he confronted every obstacle; with a patience and a gentleness born of a conviction that his position was sound, and a knowledge that his motives were pure, he would listen to adverse views, hostile criticism, and unfair statements.

When it was urged that people would misunderstand him—that, misled by a partisan press, they would impugn his motives—he would calmly answer: "It is our duty to do that which is best for the College;" or again, "Let them lie about us; we must be prepared to sacrifice ourselves in doing our duty." Even when his last illness was upon him, when unable to be out of bed, when unsafe to come unattended, he came to the board meeting, accompanied by his son, and took part in the transactions of the regents while lying upon his bed, stricken with a fatal illness.

Such devotion will not go for naught—neither in this world nor in the realm of spiritual life. Here, men and women will rally to put into effect that which he planned, that for which he labored, that for which his great heart beat so warmly. There, that identity which we know as Harrison Kelley, the real I—that divine, permanent, eternal ego—will reap the reward of a noble life of lofty, unselfish endeavor. Let once the storm of superficial personalities be hushed in the presence of the glorious dead; let our people once see what this great soul planned for them; let them realize the unselfish devotion he put into the work of his heart, and they will arise and speedily carry his ideal to a glorious realization.

And death came to him, not as an enemy, but as the Strong Deliverer comes to us all, as a tender friend, a loving mother. I know whereof I speak, for in the years that it has been my privilege to call the departed one friend, I have had glimpses of his spiritual life which, I imagine, were caught by but few. Harrison Kelley was a deeply earnest man. Some would call him religious. He had no creed, no formula of faith set in words; his was the larger, the nobler creed, that of noble deeds. He was not curious about God, and he loved his fellow man. As to the conscious immortality of the soul, he told me that he knew nothing. But there was that in his fiber and make-up that gave him such a hold upon the great, eternal, ever-present life, that he could meet death with that imperturbable indifference of which great souls alone are capable.

Let me say of Harrison Kelley what Victor Hugo said of Shakespeare: "He did not question the invisible world, he rehabilitated it. He did not deny man's supernatural power, he consecrated it." My friend was not given to speculations about the after life, but he was, *he is*, such a complete blending of the elements which constitute the eternal life, that he lived upon this material plane, when with us, the eternal life—even as he *now lives that life*, beyond the ken of our material senses.

Take a look at that patch of soy beans just west of Krause's shoe shop. The Kansas State Agricultural College imported the seed from Japan, and four years of experiments has proven them a success for this country.—*Leon Indicator*, July 22.

*Any who may think the picture overdrawn are respectfully referred to Henry Clews's "Twenty-eight Years in Wall Street;" "Chapters of Erie," by Charles Francis and Henry Adams; or to Lloyd's "Wealth Versus Common Wealth."

†The following table, made up from figures found in U. S. Census Bulletin No. 98 (June 24, 1895), bears out the above, the figures given being in percentages:

POPULATION BY FAMILIES.		WEALTH.	
Millionaires.....	.03	Millionaires.....	.20
Rich.....	8.97	Rich.....	51
Middle Class (owning farms or homes without incumbrance).....	.28	Middle Class.....	.20
Lower Class (owning incumbered farms or homes).....	.11	Lower Class.....	.4
Poor (tenants of farms or homes owned by others).....	.22	Poor.....	.5
Total.....	100	Total.....	100

See also in Arena magazine, December, 1896, Eltweed Pomeroy on "The Concentration of Wealth;" Thomas G. Shearman in the Forum for January, 1891, on the "Owners of the United States;" and "An Essay on the Present Distribution of Wealth in the United States," by Charles B. Spahr. (Crowell & Co.)

VALUE OF FORESTS. II.

BY W. L. HALL, '98.

[A Thesis prepared in Special Forestry Class, Fall Term, '96.]
III.—IN PREVENTING FLOODS AND GIVING A MORE EVEN FLOW TO STREAMS.

THE immediate cause of floods is the drainage of water from the earth's surface faster than the channels of the out-flowing streams can carry it away. Nearly all countries are subject at times to great rainfall. When the streams are full, the surplus spreads itself out over the level fields until the way is opened for it to be carried off. In hilly or mountainous regions when the rain falls faster or in greater quantities than can be absorbed, it rushes down the slopes, gathering into torrents that grow larger and stronger and more dangerous as they proceed, unless some interfering obstacle prevents their formation or checks their progress.

When such rapid drainage goes on on all the hill-sides and slopes of a region or of a water course, the volume of water caused by the union of these currents is often enormous and beyond the capacity of streams to remove. Such rainy seasons are often followed by periods of prolonged drought, the results of which are magnified by the fact that the water which should have gone into the soil during the rainy spell was drained away and was lacking in the time of need.

It has been a matter of long-continued observation that streams which have their headwaters in regions covered with forest are not subject to extremes in volume as are those which have no such protection. The reason for this is obviously the fact that the forest holds back the water that falls upon its area and retards rapid drainage. The manner of retardation has been mentioned in a preceding paragraph. The water which is thus held back is drained off gradually from the surface, while owing the porosity of the soil and the means offered by tree-roots for its subterranean escape, a very large portion is drawn into the soil and the natural system of underground drainage to form a reserve for springs and streams. Through these processes of slow drainage the water flows into the streams with little variation throughout the year. Moreover, in forests there is never rapid melting of snow. It usually remains two or three weeks longer here than on open ground. The ground in the open space is often frozen beneath the snow so that when thawing begins the water must be carried away on the surface, as it is unable to sink into the soil. In woodlands, the ground is seldom frozen beneath the snow, and when gradual thawing commences the water is absorbed and held, to be used by the plants or to be fed out in the flow of useful springs.

Where forests have been cut away, the effect upon neighboring streams has been very damaging. Heavy rain or snowfall results in great floods that destroy life and property. Following this, the hill-sides dry out in lack of moisture and become baked by the hot sun. The underground drainage is out short and the springs run dry, resulting in great loss and inconvenience to the inhabitants.

Europe has passed through such a course of deforestation, and is now suffering the baneful results. The normal volumes of the greater number of European rivers have gradually decreased. The Rhone, the Elbe, and the Oder are shallower now than formerly. The waters of the Elbe have declined ten feet within the last fifty years. The decrease is attributed to the destruction of the Bohemian forests. The river Scamander, which in Pliny's time was navigable, is now dry and its course is almost lost. The lakes in Switzerland are constantly becoming lower. The city of Mexico formerly stood on several islands in Lake Tizenco. Owing in large part to the destruction of the magnificent forests that clothed the hills in ancient times, the water has receded, until the city, though occupying the same site, is now two miles from the shore.

In 1881, the New York Forestry Commission began to investigate the influence of forests upon streams of that State. Their reports show that the regular flow of springs and streams of that State and New England is diminished with the destruction of forests. The streams that thirty or forty years ago kept the ponds well filled for operating saw and grist mills, and furnished a never-failing supply for farm use, are now dry in the summer. The extremes of heat and cold are greater, and the droughts in summer and floods in spring time are now frequent and more destructive. As cause of this is assigned the cutting away of timber and the draining of swamps.

Prof. Newberry, in his Geology of Ohio, says, "The Ohio River has been getting lower and lower in dry seasons for many years. The flow of the Schuylkill

is diminishing at the estimated rate of one per cent per year." J. M. Anders, in his Sanitary Influences of Forests, says: "Whenever in past times the forests have been cleared away by a populace, the effect has been most lamentable, the small streams drying up, followed by unfertility of the soil, insalubrity of climate, and sometimes utter desolation. To show even more conclusively that streams and rivulets owe their origin and permanence to the woodland, they have reappeared after reforesting the places which had been cleared."

The latter statement has been fully proved where systematic reforestation has been carried on in Europe. The springs returned to their permanence, and the streams to their usual volume. The freshets and floods have become less violent, and the general results have been so beneficial that the value of forest growth cannot be mistaken. The interest awakened by such successful achievements is growing year by year, and the hope of general activity in reforestation seems to be not entirely groundless.

IV. IN ECONOMIC PRODUCTS.

During the census year of 1880, the estimated value of the entire forest output in the United States was \$490,073,094. This omits entirely a large quantity used as fencing posts, also the bark which is used in tanning purposes, and the quantity of unsawed lumber produced and used as spars, piles, telegraph poles, hewed poles, and hard-wood exported as logs. Other items were incomplete, so that the forest crop for the year could not have fallen short of \$700,000,000 in value. It furnished employment to 147,956 persons at a wage sum of \$31,845,974.

Michigan was at that time the largest lumber-producing State in the Union. Together with Wisconsin and Minnesota, it furnished more than one-third of the annual products. The splendid resources of the region with the facilities for water transportation upon the lakes, and the easy access to agricultural regions on the west, have made possible the wonderful development of the industry. As the resources of the region have since in great part failed, the more remote parts of the country have become scenes of activity in the lumber business. At present much of our pine lumber is being furnished by the Southern States, while Montana, Wisconsin, Minnesota, Oregon, and Washington are now losing their pine forests with great rapidity.

Hard-wood forests in the Mississippi Valley have been culled of their best timber, and the later growth forms the larger part of the timber now found. The great mountain forests of the West are also disappearing. The California redwood is an object of especial desire among the lumbermen, and specimens that now remain are comparatively few.

Though the forests of the country have suffered terrible inroads year after year, they still turn out every year an enormous yield. With judicious care in cutting, we have lumber to supply our needs for a long time to come. But fire and ax are still at the work of devastation.

In 1893, the Department of State dispatched to its consular agents in foreign countries inquiries concerning the forestry interests of their respective countries, and the process in construction and building and the imports from the United States, together with indications of the possibility of improving the lumber trade of the United States with foreign countries. Reports from many countries showed that the greatest obstacle in the way of lumber exportation from the United States is the cost of transportation, which raises the price until scarcely any but the species suitable for fancy designing and construction can go upon the market. The lack of foreign trade is of little consequence, however, as our home market is great enough to take all the supply, i. e., all the annual product. With the lumber industry should go hand in hand a well-regulated system of reforestation, so that the cutting of trees will entail no loss upon future generations without providing means for the continuation of the supply.

Weather Report for June, 1897.

BY C. M. BRESEE, OBSERVER.

The temperature, wind, rainfall, and cloudiness of June all exceeded the average; barometer was a trifle less than normal. The first week of the month was cool, and vegetation advanced slowly, corn especially so; this weather was favorable for wheat. During this week early home grown potatoes began coming to market. The second week was warmer and more seasonable, corn growing nicely as a result. Early cherries a good crop and being marketed. Wheat began ripening about the 12th. The third week was very hot, and as a result wheat ripened somewhat prematurely; corn made a rapid growth. The end of the month found the wheat in shock, and a very good crop; the ground well soaked; corn and fruit prospects first class; pastures excellent.

Temperature.—The mean temperature was 74.92°, which is 1.63° above normal. There have been 11

warmer and 28 cooler Junes on our record, the extremes being 60.85° in 1893 and 80.29° in 1860. The highest temperature was 102°, on the 16th, 17th, and 19th, lowest 44° on the 4th—a monthly range of 58°. The greatest daily range was 36°, on the 1st; the least, 9°, on the 2nd. The mean daily range was 24.9°. The warmest days were the 16th and 17th, the mean temperature being 87.5°. The coldest day was the 3d, the mean temperature being 54.75°. The mean temperature at 7 A. M. was 68.07°; at 2 P. M., 86.6°; at 9 P. M., 72.5°. The mean of the maximum thermometer was 89.23°; of the minimum, 64.37°; the mean of these two being 76.8°.

Barometer.—The mean pressure for the month was 28.711 inches, which is .029 inch below normal. The maximum was 28.957 inches, at 7 A. M. on the 20th; the minimum, 28.384 inches, at 2 P. M. on the 16th; monthly range, .573 inch. The mean at 7 A. M. was 28.732 inches; at 2 P. M., 28.691 inches; at 9 P. M., 28.71 inches.

Cloudiness.—The per cent of cloudiness was 48.89. This is 9.89 per cent above normal. The per cent at 7 A. M. was 53.33; at 2 P. M., 56.67; at 9 P. M., 36.67. 1 day was entirely cloudy, 3 were 5-6 cloudy, 10 were 3/4 cloudy, 2 were 1/2 cloudy, 9 were 1/3 cloudy, 3 were 1/4 cloudy, and 2 were clear.

Precipitation.—The total rainfall was 4.97 inches. This is .54 inch above normal. The table following shows monthly rainfall for 1897, the normal, and departure from normal:—

Months.	Normal	1897.	Departure from Normal.
January	.79	1.32	.53
February	1.04	1.20	.16
March	1.32	2.19	.87
April	2.76	4.19	1.43
May	4.08	2.30	-1.78
June	4.43	4.97	.54
Total	14.42	16.17	1.75

Wind.—The wind was from the following directions the given number of times:—

South	40	Southwest	10	North	4	Northeast	3
Southeast	19	East	9	Northwest	4	West	1

The total run of wind was 7687 miles, which is 381 miles above the average. This gives a mean daily velocity of 256.23 miles, and a mean hourly velocity of 10.68 miles. The highest daily velocity was 459 miles, on the 16th; and the lowest, 133 miles, on the 7th. The highest hourly velocity was 32 miles, between 8 and 9 A. M., on the 10th, and between 11 and 12 P. M. on the 21st.

The following tables give comparisons with preceding Junes:—

June.	Number of Days.	Rain in inches.	Per cent of Cloudiness.	Prevailing Wind.	Mean Temperature.	Maximum Temperature.	Minimum Temperature.	Mean Barometer.	Maximum Barometer.	Minimum Barometer.
1858	8	5.19	...	...	75.14	98	52	...	...	...
1859	8	3.57	42	s	74.55	97	54	...	...	...
1860	5	2.69	26	sw	80.29	109	59	...	...	...
1861	8	8.20	98	s	78.28	98	66	...	...	...
1862	5	1.37	34	s	72.95	101	52	...	...	...
1863	12	5.95	59	s	70.40	92	53	...	...	...
1864	8	2.06	68	s	75.55	100	50	...	...	...
1865	11	7.98	...	...	76.01	90	59	...	...	...
1866	10	3.60	35	sw	70.88	94	58	28.69	29.00	28.24
1867	11	5.65	39	s	73.05	91	53	...	...	...
1868	6	3.48	43	s	73.01	87	53	...	...	...
1869	10	8.35	49	sw	76.18	86	46	28.81	29.10	28.55
1870	7	7.79	44	sw	73.93	102	55	28.76	29.00	28.50
1871	9	2.05	42	sw	73.92	100	63	...	...	...
1872	10	1.73	40	sw	75.09	96	60	...	...	...
1873	11	4.68	49	sw	74.14	97	60	...	...	...
1874	6	4.31	43	sw	76.28	94	47	28.78	29.10	28.36
1875	6	2.06	33	s	75.02	98	42	28.68	28.98	28.38
1876	4	4.60	27	sw	79.29	92	37	28.70	28.94	28.45
1877	7	6.76	51	sw	72.19	93	40	28.68	28.88	28.35
1878	7	6.02	56	sw & nw	68.86	88	41	28.73	28.96	28.40
1879	13	5.08	47	s	72.66	97	52	28.67	28.95	28.37
1880	6	4.10	43	s	74.43	90	46	28.58	28.88	28.17
1881	10	3.38	36	sw	78.07	95	61	28.53	28.75	28.26
1882	9	3.39	39	sw	75.87	97	40	28.56	28.96	28.26
1883	10	9.58	60	s	71.17	96	46	28.62	28.80	28.24
1884	4	3.82	24	se	71.69	95	47	28.50	28.75	28.35
1885	6	1.67	33	ne	73.78	97	50	28.64	28.98	28.28
1886	7	5.43	22	s	72.54	101	46	28.73	29.31	28.51
1887	10	4.51	34	...	74.21	104	40	28.82	29.05	28.60
1888	8	5.23	25	...	73.43	99	40	28.89	29.12	28.59
1889	5	3.56	36	...	70.39	97	41	29.09	29.38	28.56
1890	8	1.85	20	sw	77.22	103	44	28.81	29.16	28.43
1891	12	7.45	45	s	69.95	93	51	28.78	29.07	28.47
1892	3	3.32	12	sw	74.32	102	43	28.75	29.08	28.48
1893	10	5.73	25	s	60.85	91	50	28.76	29.01	28.25
1894	12	5.05	30	s	74.01	99	44	28.81	29.07	28.42
1895	8	5.43	41	s	72.67	102	49	28.83	29.03	28.54
1896	8	2.63	41	se	73.19	98	46	28.81	29.13	28.48
1897	11	4.97	49	s	74.92	102	44	28.71	28.96	28.38
Sums	329	177.17	1509	...	2931.8	...	...	775.86	...	...
Means	8	4.43	39	s	73.29	...	...	28.74	...	...

WIND RECORD.

June.	Total Miles.	Mean Daily.	Maximum Daily.	Minimum Daily.	Mean Hourly.	Maximum Hourly.
1889	5574	187.89	375	71	7.83	28
1890	9665	322.18	488	115	13.42	27
1891	7010	233.66	369	62	9.74	29
1892	8737	291.23	546	91	12.13	33
1893	6858	228.60	536	104	9.52	37
1894	6985	232.83	370	103	9.70	46
1895	6759	225.30	437	68	9.39	28
1896	6480	216.00	477	100	9.00	36
1897	7687	256.23	459	133	10.68	32
Sums	65755	2193.92	...	...	91.41	...
Means	7306	243.77	...	...	10.16	...

For Sale.

A very desirable home for those having children to educate or who wish to board students, as it adjoins the State Agricultural College grounds. For particulars, address P.O. Box 757, Manhattan, Kansas.

THE INDUSTRIALIST.

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BY THE PRINTING DEPARTMENT,

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EDITED BY THE FACULTY AND STUDENTS.

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NOTE.—Names are arranged in alphabetical order of depart-
ments.
*Recent appointment.

Calendar.

1897-98.
Fall Term—September 9 to December 18.
Winter Term—January 4 to March 26.
Spring Term—March 29 to June 9.
June 9, Commencement.
1898-99.
Fall Term—September 8 to December 17.

To School Officers.

The College Loan Commissioner has funds now to invest in school district bonds at par. The law requires that no bonds be sold at par or less without being first offered to the State School Fund Commissioners and to the State Agricultural College.

Address, T. J. HUDSON,
Loan Commissioner,
Fredonia, Kansas.

President Will has had many calls to lecture this summer and has responded whenever he could find the time. Since our last issue he spoke at the Berrington (Shawnee county) Grange picnic; by so doing he was compelled to decline an invitation to speak at Medicine Lodge, the dates being in conflict.

The considerable changes have been made in the course of study, it is not expected that all these can go into operation at once. They must be approached somewhat gradually. Members of the class of '98 will be allowed considerable freedom of choice among the three courses offered to the farmers, mechanics, and women. Other variations may be allowed this year, to avoid hardship to the students.

George M. Munger, who succeeded the late Harrison Kelley as a regent of the State Agricultural College, is full of practical ideas, and will be a useful member of the board. He conducts an irrigation farm in Greenwood county and his experience will be valuable in instructing the students of the institution along that line. He also knows how to plant trees and when to plant them, which is something few farmers know. He has been a successful money-getter, and has a wide experience generally, all of which comes handy in teaching young people practical economy. In addition to all this, Mr. Munger takes hold of an enterprise with energy and earnestness.—*Kansas City Star*.

Acknowledgments to the Press.

The press of Kansas, and especially the farmers' papers, have given us so many kind and encouraging notices during the past week or two that it will be impossible to mention one-tenth of all. The *Wamego Times* and the *Olathe Herald* have given the College complete write-ups of more than a column. Many, too, speak well of the last two numbers of the *INDUSTRIALIST*. In speaking of the new catalog the *Wakefield Advertiser* says:—

Judging from its make-up, contents, and general appearance, it seems that the institution is not suffering much from "general demoralization," to say the least.

The *Blue Rapids Motor*, among other things, says:—

The last number of the *INDUSTRIALIST* was far ahead of any paper that came to this office in point of typographical neatness and beauty, as well as in subject matter.

The *Eureka Union* remarks:—

From personal knowledge of the institution and the community in which it is located, the editor commends it to all young people who want a most useful education.

The *Abilene School and Home* speaks of the College in several items and says among other things:—

It is hoped that our High School [at Chapman] may come in closer touch with the State Agricultural College. Only a few of our graduates are as yet looking forward to a course in that institution, the majority of those seeking higher institutions of learning, having entered the State University or the State Normal School. Since so large a majority of those attending the High School come from the farm, it is but natural to suppose that many of them will be engaged in agricultural pursuits after completing their education. They certainly would be much better prepared to engage in that line of work after spending a year or more in the study of such branches as are especially adapted to their needs in the several courses. President Will has invited Principal Cook to meet him in order to arrange for certain credits to be given by the college. The President has promised to visit the High School during the coming year.

The *Manhattan Republic* makes mention in the following patriotic manner:—

The Kansas State Agricultural College will continue to live, prosper, and excel as a great educational institution in spite of the dirty work the Topeka Capital and its little echo, of this city, are continually doing to damage it. This is an institution of which every citizen of Kansas should feel proud, and every citizen who is loyal to his state and desires its welfare does feel proud of it and has encouraging words for it instead of attempting to tear it down, as the Capital and its puppets are doing. The Republic is glad to know that so many republicans are disgusted with the papers that have so maliciously misrepresented facts as regards the college, to the detriment of, not only this great institution, but also to the city of Manhattan—the home of the college.

Above all, we are under lasting obligations to the *Kansas Farmer*, which has encouraging words or a mention of our work in every recent issue. Merely as a sample, we make room for the following appreciative notice of the newly-appointed successor of Regent Kelley:—

By the appointment of Hon. Geo. M. Munger of Eureka to succeed the late Harrison Kelley as regent of the Agricultural College, the state secures the services of a man of large experience, who has made an eminent success of the affairs of life, a Kansas farmer who is devoted to the interests of the State, a consignment of the kind of energy which surmounts obstacles, and is willing to devote to whatever there is to do the work necessary to success.

W. S. Pate, principal of the Walnut public schools, and Geo. F. Gorow, on his way to take a position tendered him in the public schools of Marysville, are two members of the State Normal School alumni who have recently made inspection of the College buildings and grounds with view to intelligently advise prospective students—an example worthy of imitation.

THE WARFARE OF SCIENCE.

BY PRESIDENT THOMAS E. WILL.

UNIVERSAL truth may be compared to the surface of a sphere; science, or men's comprehension of the truth, to the light radiating from luminaries, at first faint and few, and gradually growing more brilliant and more numerous. In the remote past, thick darkness veils this world. Then a faint patch of light appears on the surface. Later, another and still another appears, until in time men indulge the hope that one day, either in this world or in another, all truth may be known, and all darkness will have given place to perfect day.

While knowledge is fragmentary, it is imperfect, not only in quantity, but in quality. Nothing can be truly known save in its relations to all other things; but while many other things are veiled in darkness, it follows that the relations of the so-called known to the unknown cannot be perceived. The known, therefore, is known but imperfectly; it is seen as through a glass, darkly. With each considerable new discovery, the whole body of old knowledge must be reorganized and brought into relations to the new. The progress of science is therefore of necessity unsettling and revolutionary. It ruthlessly overturns "the established," the conventional, "the orthodox," and compels men to re-think their old theories of things, abandon that which will not square with the new, and bring that which will into harmonious relations with that which the most recent light has made manifest.

The progress of science is necessarily and inherently offensive to "the carnal mind," whether such mind be found in business, in politics, in the church, or in the college chair. The necessary abandonment of some views long held and taught, and the re-statement of others, implies a rude shock to the "authorities" and the "infallibilities." The oracles of science imagine their consistency will be impaired and their influence weakened by their change of front. Hence their natural impulse is to oppose the new to the bitter end. Further, the reorganization of doctrine means work. He who for a generation has calmly moved in a groove, and thought and taught mechanically, is rudely jostled out of his complacency when asked to re-think the theories of a lifetime. If at all advanced in years, and unblessed with the kind of mind endowed with eternal youth, he is prone to feel that the labor involved is too great for him to undertake. Even if younger, his sloth and indolence may make the task repulsive to him. Hence he joins the ranks of the opposition.

Again, the majority are almost universally on the side of the old; and the over-cautious and cowardly feel safer when lost in the crowd than when thrust forward as pickets and scouts. They therefore conclude that the old is good enough for them—which is doubtless true, since cowards do not deserve to inherit the goodly land of the larger truth and the clearer light. Another body join in swelling the great army of the opposition; they are the Bourbons, who never forget and never learn. They are those whose pecuniary interests are bound up with the old; those who see that the hope of their gains is gone if the new triumphs; those whose "pocket nerve" is painfully impinged upon by the new light; those of whom Macaulay spoke when he declared that "If any considerable pecuniary interest were concerned in denying the existence of the law of gravitation, that law would be denied among us until this day." Of all the opponents to the progress of truth these are the most active, uncompromising, and vindictive. They may be intelligent enough to foresee the consequences of their acts, this class of obstructionists and light extinguishers, hoping the evil day which they are hastening may be deferred until they are gone, deliberately stoke up the fire and seat themselves on the social safety valve, anathematizing meanwhile those who point to the rapidly rising steam.

In any society these counsel darkeners and truth haters constitute one of the most dangerous classes. It was these who compelled the agrarian uprisings in Rome, and the American and French revolutions; who have made it impossible to attain essential reforms in England save by riot and mob violence; who made the American civil war inevitable, and who today are doing their best again to plunge the nation in blood.

Practically every advance step in science has been fought to a finish by those who, could their view but have prevailed, would have reduced science to the level at which it stands in China. Fortunately heroic

souls have in most ages been found ready to stand out for the truth, tho paying for their loyalty with their lives; and to these martyrs of science the world is indebted for much of its progress from cave dwelling, cannibalism, and fetish worship. Even now, in an age and country of supposed light and liberty, the contest still rages at a multitude of points along the frontier, being especially bitter in theology and sociology. Those who would bind men's minds to the superstitions of the Dark Ages, and those who would chain men's bodies to the car of Mammon seem determined to conquer or die only in the last ditch.

The general subject of the warfare of science has been ably discussed by Hon. Andrew D. White in an extended series of magazine articles.* It is to the warfare of economic and sociological science that attention is especially invited in this and subsequent papers. Competent sociologists are today practically agreed that society is an organism, subject to evolution. Social growth involves change. Slavery gave place to feudalism; feudalism to hand production by the agency of free labor; hand production has given place to machine industry and the struggle for the world-market; competition is being rapidly supplanted now by combination: partnerships merging into companies, these into corporations, these into trusts, and these into still vaster and less numerous trusts. As the astronomer can predict the eclipse, so the sociologist can almost predict the day when, if society continues to move on its present lines, practically the entire machinery of production and exchange, that in the outlying districts alone excepted, will have been concentrated in the hands of a few gigantic trusts.

The economic science of any age and country endeavors to describe the industrial system then and there existing, its mode of working, its underlying principles, and the effect of this system upon the various classes of society. Obviously, the economics of the hand working stage must be as complete a misfit if applied to the present economic condition of America as would be the economics of feudalism if applied to the hand working or to the slave stage. Few have seen this more clearly than that economist, truly great in his generation, John Stuart Mill, who declared that such a work as his *Principles of Political Economy* would need to be rewritten every few years in order to keep pace with the progress of the industrial movement. Yet the attempt is made today to shape current economic thought in the old classic molds which Mill himself had broken before his death, and to silence the investigator who seeks to understand the present industrial system and to tell what he sees.

So, partly for the reasons above outlined—pride of opinion, intellectual inertia and moral cowardice—and still more largely because the present industrial system will not bear examination, simply to state the cold facts as found in the United States census is to flap the red flag in the face of the bull of modern capitalism. The man who profits by our present industrial adjustments and processes, and accumulates his millions and hundreds of millions, usually, loves darkness rather than light, for reasons doubtless well known to himself—and to open-eyed economic investigators as well. One has but to present a list of modern millionaires and trusts with their property duly indicated, and opposite it such a showing as is offered by Mr. Charles Booth's map of London, with the statement from the Declaration, "All men are created equal," to expose the whole gigantic farce. Small wonder, then, that economists are advised to "teach only the established principles of political economy," and ordered to suppress views not generally accepted in their communities!

But if already in possession, and if, as they have recently declared, "Those who own the country will continue to control it,"† why should the proprietary classes fear the light? The answer doubtless is that they realize, first, that great wealth is usually accumulated by ways that are dark; and, second, that their power, like all minority rule in a republic, rests only on common consent, and however completely they may have harnessed down the people by contracts, purchased legislation, judicial injunctions, and poverty, the people have but to perceive the true condition of affairs and they will rise and snap in

sunder the cords that bind them, as Samson snapped the cords of the Philistines. Those who "own the country" and propose to "continue to control it" evidently have a definite and carefully prepared program somewhat similar to that which Peter the Great is said to have formulated for the guidance of his successors to the Russian throne. Some features of this program seem to be as follows:—

First, to overthrow the doctrine of natural rights, on which the revolution, and the war for the emancipation of the slaves, and practically all great reforms have been fought out; and substitute therefor the doctrine that man has no rights save those allowed him by the legislature and recognized by the executive and judiciary; a very serviceable doctrine, by the way, so long as those that own the country own the legislative, the executive, and the judicial machinery; but have they fully considered what might become of their proprietary rights should a government not under their control turn on them?

Second, to falsify history, especially financial history, and to juggle statistics. Examples of this can be produced at length, some of our "standard" financial history being of a character to bring a blush of shame to the cheek of a corporation attorney.

Third, to laud as "scientific" the literature that bolsters up their cause, and to ignore—or attack, misrepresent, and deride as "unscientific," "radical," and "sensational"—demonstrated truth that is against them.

Fourth, to pack with their friends and apologists the economic departments of the great universities of the country, from which economic teachers largely go out to the smaller colleges; or at least to fill these chairs with men who have the fear of organized wealth so constantly before their eyes as to be harmless.

Fifth, to discipline all private and denominational educational institutions, from the small starveling colleges to the great trust universities, with the hope of granting or the threat of refusing endowments; thereby making these institutions as subservient to their will as were the pulpits of the south to the will of the slave-owning planters; and, similarly, where possible, to capture and overawe, or dictate the economic policies, of all state educational institutions.

Sixth, remorselessly to turn down every economic and sociological teacher whose work appears to them in any degree dangerous to their power.

Seventh, whenever possible, to mislead the public as to the true inwardness of these removals by trumping up sham reasons therefor, and offering them as genuine.

That plutocracy proposes to control the institutions for higher education may be gathered from a mass of facts, of which the following are some:—

1. An extended and steadily growing list of removals already exists whose cause, in some cases presumably, and in others demonstrably, can be traced to the unsatisfactory character of the professor's views, as seen from the standpoint of capitalism.
2. When sham reasons have been offered for certain removals, the real ones have leaked out. For example, one man was removed because of "lack of funds" on the part of the institution. Yet the vacancy was filled soon after, tho no substantial additions had been made to the resources of the college. To clinch the nail, one member of the board quietly informed the outgoing professor that a prominent millionaire on the board whose funds were in great demand by the college informed the board that "None of his money could be expected for the college while such teaching was maintained." Further, the professor had previously been warned that his views were unsatisfactory to this same millionaire, and that he (the professor) had no right to offend a man of such importance. His reply that his views were "not for sale" probably did not help the matter.
3. The declarations of certain publications at the time of the trial of Prof. Richard T. Ely for "economic heresy" make plain that a teacher whose views concerning the wealth of the wealthy are not orthodox is not fit, in the minds of these papers, to occupy a chair in a higher institution of learning.
4. The utterances of the committee of the Brown University board of trustees appointed to confer with President Andrews concerning the interests of the university dispel all doubt in so far as the action of this committee is representative. It is evident that in their view money and not men is the object sought by university boards; and that no educator, however eminent, is safe in the expression of economic views offensive to the classes "who own the country" and propose to "continue to control it."
5. The following from the pen of one of the leading economists and educators of the East leaves little to

be desired in point of clearness regarding the treatment to be accorded economic heretics of a certain brand:—

The inflationist, like the poor, we have always with us. . . . The instinct of spoliation and confiscation, the passion for making something out of nothing and much out of little, the desire to pay debts in depreciated money, are too deeply implanted in poor, fallen human nature to give way altogether, either to ethical instruction or to demonstrating that, in the long run, honesty is the best policy. There are thousands and tens of thousands in Massachusetts today, who, if removed west of the Mississippi, or even only beyond the Alleghenies, would be rampant inflationists, but ARE HERE OVERAWED BY THE DOMINANT SENTIMENT OF THE COMMUNITY, or are silent because they see no chance to act with effect in such a hopeless minority. Those who constitute the element now under consideration are not bimetallics. Bimetallism will rob the free coinage of silver of half its charms for them. What they want is silver "inflation." It is from this source, and not from the silver-producing states, that the greatest danger to the integrity of our national currency has arisen. That danger is to be met by DEFIANCE AND UNCOMPROMISING RESISTANCE. It is to be met, not as it was in 1890, but as it was in 1891 and 1892. IT SHOULD BE FOUGHT FROM THE START, ON THE LINE; FOUGHT TOOTH AND NAIL; FOUGHT TO THE DEATH. Thus encountered, the instincts of spoliation and confiscation, which every now and then spring into activity and clamor for inflation, are not greatly to be dreaded. THE LESSON OF THE GREENBACK FIGHT SHOULD NEVER BE LOST TO THE INSTRUCTORS OF YOUTH OR TO THE STATESMEN OF AMERICA. The moral obliquity, the economic folly, which underlie every popular demand for bad money, are FATAL TO ITS ADVOCATES before the people, WHETHER ON THE STUMP OR IN THE PRESS. THE ONLY WAY TO MAKE INFLATIONISM TRULY DANGEROUS IS TO BE AFRAID OF IT.—[Page 166.] * * * I am so little of a doctrinaire that I should hesitate to say that, in all matters political, flat and contemptuous resistance to unreasonable demands and evil measures is always a safe policy. But all my study of financial history has tended to create an increasing conviction that the only good policy in dealing with financial crazes is to fight them, from the word go, without asking or giving quarter.—[Page 177] Francis A. Walker on the Free Coinage of Silver, in *Journal of Political Economy*, March, 1893.

Tho the attempt of a college board to spike an economic gun is sometimes made public, in which case the pros and cons are as a matter of course ventilated, the policy as above stated appears in most cases to be for the college board to assign spurious reasons for its action, and for the press obediently to suppress the facts.

The case of Professor James Allen Smith is one with which the writer has been familiar for several months. The writer sent word to the editor of a great New York newspaper mentioning the case, stating where the facts could be obtained, and suggesting that the paper might be interested in discussing the subject. The editor replied that within a few days he would be in the immediate neighborhood of the source referred to, and would be pleased to investigate the matter.

Not a line, however, has ever appeared in that paper in regard to this case, tho the same paper has been able to devote several columns to criticisms of the Kansas State Agricultural College board.

On page 180 may be found the facts in the case of Professor James Allen Smith.

Prof. E. E. Faville.—Additional Mention.

Some of the letters we have received concerning Mr. Faville are given below:

Dominion of Canada,
Department of Agriculture, Division of Horticulture,
OTTAWA, May 14, 1897.

It gives me pleasure to endorse in the strongest way possible the candidature of Prof. E. E. Faville, now of the Nova Scotia School of Horticulture, for a position in the horticultural department of the Kansas Agricultural College. Prof. Faville came to Nova Scotia four years ago, and since that time has organized and got into good working order a school of horticulture, and this while laboring under many difficulties and disadvantages. I have had the opportunity of observing Prof. Faville's energy and ability as an organizer and instructor during that period. His work in Nova Scotia is thoroughly appreciated by the fruit growers, and as a teacher he stands high in the estimation of his pupils. I am, sir, yours very truly,

JOHN CRAIG, Horticulturist.

Experiment Station, Iowa Agricultural College,
AMES, IOWA, May 19, 1897.

I have been intimately acquainted with Prof. Faville as a student and as director of the Nova Scotia School of Horticulture for the past four years. He is in the first place a man of good natural ability, and pleasing address and scholarly attainments. He is a good speaker and organizer, and is in all respects, I think, exceptionally qualified for horticultural work. He has been eminently successful in his work as director of the Nova Scotia School of Horticulture, and has been promoted from time to time, and sent abroad to study the European markets and other matters of interest for the benefit of the Nova Scotia school. I am free to say that I do not know of an available man anywhere in the country that I believe possesses better qualifications for your work than Prof. Faville. Very truly yours,

C. F. CURTISS,

Director in charge and professor of agriculture,
United States Department of Agriculture,
Office of the Secretary,
WASHINGTON, D. C., May 17, 1897.

If you desire to secure a competent horticulturist, it gives me pleasure to recommend Prof. E. E. Faville, of Wolfville, Nova Scotia. He graduated several years ago at the Iowa Agricultural College; was an excellent student and stood high in his classes; is of fine address; is a native of Iowa; and would without doubt do you good work in the horticultural department. Very respectfully yours, JAMES WILSON.

Government of Nova Scotia, Office of Agriculture,
HALIFAX, N. S., May 20, 1897.

Prof. E. E. Faville, for several years director of the horticultural school at Wolfville, in this province, an institution highly valued here, has discharged the duties of his position to the utmost satisfaction of all parties interested. He has also been a very useful man as a popular lecturer, in spreading knowledge on the subject which he makes his particular field of study and research. Since his connection with the institution he took a trip abroad, visiting the principal fruit growing districts of agricultural Europe, and thus added very much to his store of practical knowledge. I therefore have no hesitation in saying that in my opinion (and in that I am sure I will be supported by every man who knows anything about Prof. Faville and his particular field of usefulness) he is a first class man in every particular. Yours truly, B. W. CHIPMAN.

Iowa State College,

AMES, IOWA, May 28, 1897.

These are all good men, but Prof. E. E. Faville is the most strongly endowed and best qualified of the three. He has made a very strong record in his work at Nova Scotia. He has made a trip abroad to Europe in the extension of his studies in horticulture. . . . He would do you sterling service. You will not make a mistake in his election. Sincerely,

W. M. BEARDSHEAR,
President Iowa State College of Agriculture and Mechanic Arts.

Sec'y. Graham is moving into the house formerly occupied by Prof. Mason.

*Popular Science Monthly: Vol. 8, pp. 385, 553; vol. 27, p. 721; vol. 31, pp. 373, 452; vol. 32, pp. 433, 596; vol. 34, pp. 433, 577; vol. 35, pp. 1, 145; vol. 36, pp. 433, 577; vol. 37, pp. 145, 289, 577, 721; vol. 38, pp. 289, 433; vol. 39, pp. 1, 145, 433, 600; vol. 40, pp. 323, 577, 728; vol. 41, 145, 446, 577; vol. 42, pp. 145, 289; vol. 44, pp. 433, 721; vol. 45, pp. 1, 145; vol. 47, pp. 145, 289, 446, 577, 721; vol. 48, (Sketch of A. D. White by G. L. Burr, p. 546; vol. 49, pp. 560-3. Westminster, vol. 107, p. 19. Dub. Univ., vol. 88, p. 382. History of the Warfare of Science (White); Independent, vol. 48, p. 804 (June 11); Outlook, vol. 53, p. 1153 (June 20); Critic, vol. 25, p. 456 (June 27); Literary World, vol. 27, p. 212 (July 11); Forum, vol. 22, p. 65-78; Dial, vol. 21, pp. 146-8 (Sept. 16); Academy (Lon), vol. 50, pp. 255-6 (Oct. 10); Am. Historical Review, vol. 2, pp. 107-13 (Oct.).

†See declaration by the Monetary Trust in the Chicago Tribune for July 5, 1896.

GENERAL LOCAL NOTES.

The Kansas Star (Olathe) says that the Misses Stella and Mabel Stewart will return to Manhattan as students to the K. S. A. C.

The walls of the new Domestic Science Hall will be completed within a week. The tin work on the roof will be done by Henry & Co. of Topeka.

Messrs. L. G. Hepworth, '97, Chas. C. Smith, '94, E. G. Gibson, '96, and Hugo Halstead, '95, also Miss Bertha A. Read, took the examination for state certificates recently held at this College. Geo. D. Knipe was an applicant at the same time for state diploma.

J. A. Lovette of Manhattan was in town this week interviewing some of our thresherman with a view of making sales of his "Manhattan Equalizer," an attachment for the self-feeding machine. Mr. Lovette, a former student of the Agricultural College, is the patentee of the device.—*Russell Reformer*.

Governor Leedy has issued a proclamation to the effect that Monday, September 6, be observed as "labor day," and he recommends that all business be suspended and that the people assemble and unite to celebrate with appropriate ceremonies the day that has been set apart in honor of the wage workers of the state.

Speaking of the promotion of Jack Harrison to postoffice inspector, the Junction City Daily Union says: "Jack Harrison is a Manhattan young man, a graduate of the State Agricultural college, and since 1889 has been in the railway service, running out of Salina, studying law on the side. His appointment is a good one."

The College club of Leonardville must be having a good time. The Leonardville Monitor reports: "Miss Lou Daily of Axtell, Miss Helen and Harold Amos of Manhattan, J. E. Strack and wife, Misses Ellen Halstead, Amanda and Emma Burk, Hugo Halstead and Willard Amos spent last Friday at Winkler's Mills, fishing and picnicing."

The *INDUSTRIALIST* for July 15th is before us. This is the first edition issued since the new faculty had control of college affairs. This issue is a particularly handsome paper, both typographically and in its general make up, and contains well written biographies of new members of the faculty. We congratulate Superintendent Davis on the fine appearance of the *INDUSTRIALIST*.—*Daily Republic*.

It is seldom an institute has an opportunity to listen to a more interesting lecture than that given at the Congregational church. The subject was "Our Bondage," and the lecturer was Prof. Olin. This last fact alone assured those interested that the lecture would be an interesting one, and a large audience assembled in spite of the warm evening. Prof. Olin combines a pleasant humor with a fund of common sense in a way which always entertains an audience.—*Alma Enterprise*.

The Farm Department recently had the pleasure of a visit from Mr. W. O. Lunt, of Kansas City, Mo., who was a student of this College in 1866, when it was located out at the old College farm, with Dr. Denison at its head. Mr. Lunt and his mother boarded with Mrs. Winne. John Winne, our present postmaster, was then but seven years of age. Mr. Lunt noted much change in the surroundings here and reviewed with interest the growing crops, which were explained in detail by Mr. F. C. Burtis.

The Truro (Nova Scotia) News contains the following item: "Prof. A. B. Brown, of the Kansas State Agricultural College, has been the guest of Mr. Joseph Bigney, of Onslow, for a few days. He is infatuated with Truro and surrounding country. He left on Saturday, and will visit the land of Evangeline, before returning to Kansas. He will go via Yarmouth to New York, thence by Sept. 10, home to the same college to a position in which Prof. E. E. Faville has been appointed. Prof. Brown was unaware of this appointment, until he read of it in the 'News' and will visit Prof. Faville before leaving the province."

The Junction City (Kan.) Daily Union makes the following complimentary remarks about Mr. Cottrell: The college is to be congratulated. The Board of Regents might have looked a long time, had much more money to spend, and not have found a man better fitted for the position than is Mr. Cottrell. Mr. Cottrell has been getting from \$2,000 to \$2,500 a year, and found, so he isn't "cheap," by any means. While in the employ of Levi P. Morton, Mr. Cottrell has had the management of a great farm run in as fine shape, economically and systematically, as any in the world. This is a statement not in the least overdrawn. There are thousands of dollars invested in this large farm and stock. In the herd of 100 pure Guernseys alone there are several small fortunes. The Morton herd is as fine as any to be found in any country. The Morton dairy, that places its product on the New York City market, stands at the top with the best in this country. But the dairy is but one feature of the big farm. Mr. Cottrell has been into the actual work of farm management and has worked with the understanding that the capital invested must make four per cent. Mr. Cottrell has had advantages. He has been given every opportunity to carry out experimental work. His advantages for observation have been excellent, coming in contact, as he has, with the most modern and practical ideas to be found in this country. Mr. Cottrell was a chemist and well up in agriculture before he went to New York, and the every-day work which has fallen upon him will be of great value, not only to the college, but to the state. Besides having many other necessary qualifications, Mr. Cottrell is certainly intensely practical.

PERSONAL.

Ross Long will teach in Clay county, near Morganville.

Professor Hood returned last Saturday from Indiana, and is again on duty.

Janitor E. Emrick spent a few days with his parents at Lone Tree, Mo.

Rev. J. H. Lee, of College Hill, returned recently from a visit to Kansas City, Mo.

Prof. S. C. Mason has been elected to the chair of biology and horticulture at Berea, Ky.

President Will has moved into the Shortridge house on Pierre street, corner of Fifth.

Foreman Baxter spent part of a fortnight's vacation with his son Frank at Oklahoma City.

Prof. Olin lectured before the teachers of Ellis County at Hays City, August 19. He reports a good institute at that place.

A. E. Blair, Third year, returned July 22 from a week's visit with his parents at Quenemo, Osage county. He will continue in his accustomed place in the janitor department.

Miss May Harmon, the new drawing teacher at the School for the Deaf at Olathe, has been here the last two weeks, studying methods of art teaching under Professor J. D. Walters.

Professors Campbell, Weida, Cottrell, Fischer, Harrison and Faville are noted among the recent arrivals. It is too early to announce their residence locations. Prof. Bemis is en route, his family having already arrived.

Prof. H. W. Charles, superintendent of city schools of Washington, Kansas, interviewed several departments of this College last Saturday in company with Prof. Olin, and was much pleased with his visit.

Prof. F. A. Metcalf and wife have been with us for several weeks. They make their home in the parsonage of the Congregational church where they have rented the second floor. The professor is highly pleased with Manhattan and the College.

Prof. Frank Parsons, of Boston, and Prof. Edward W. Bemis, who was fired from Rockefeller's Chicago University, two of the most widely and favorably known educators in the United States, have been added to the faculty of the Kansas State Agricultural College.—*Appeal to Reason, Girard, Aug. 14, '97*.

Mr. Mathison, an enthusiastic dairyman of Shawnee county, who lives seven miles south of Topeka, recently called and took much pleasure in viewing the growing crops, especially the kaffir corn which is at present a beautiful sight. Mr. Mathison is satisfied that kaffir corn is the coming feed for the dairy business. He has a son and daughter to enter College this fall.

GRADUATES AND FORMER STUDENTS.

C. Hoop, '97, is clerking in Reed's grocery store at Manhattan.

S. N. Chaffee, '91, is reemployed as principal of the Riley school.

Victor Emrick, class of '95, will act as principal of the Garrison school.

R. J. Barnett, class of '95, will teach near Leonardville the coming winter.

C. J. Peterson, class of '93, has been elected principal of the Randolph school.

Isaac Jones, '94, has gone to California with intent to make that state his future home.

O. H. Halstead, class of '95, will have charge of the Leonardville school as its principal.

G. W. Fryhofer, '95, of Chicago, came home for a visit with his parents who live near Randolph.

Miss Mary Frances Carnell, '97, of Bunker Hill, will teach this winter at Paradise, Russell county.

Theo. W. Morse, M. Sc., '95, becomes assistant to Secretary Coburn of the State Board of Agriculture.

Lora Waters, '88, has returned from a month's stay in Chicago and Milwaukee. At Milwaukee she attended the National Educational Association.

Carl F. Pfuete, '93, came up from Kansas City, July 19, to visit his parents and friends. He made a pleasant call at the office of the *INDUSTRIALIST* and promised to come again.

J. F. Odle, '94, writes, July 26: "A liberal increase in wages has induced me to return to Ellerslie and accept the position of foreman under Supt. Cottrell. Please change the address of my *Industrialist* from Kalamazoo, Mich., to Rhinecliff, N. Y. On arriving here I was very much disappointed to learn that Mr. Cottrell had that day resigned the position he has so ably filled for nearly six years, to accept a place with you. All who have had dealings with Mr. Cottrell regret to see him leave, yet I can realize that New York's loss is Kansas' gain."

Harry E. Moore, '91, who is engaged in the commission business in Kansas City, Mo., writes a letter to the *INDUSTRIALIST*, from which we quote the following: "We are now prepared to handle on consignment almost everything the farmer has to sell outside of stock and fruit, though just at present we will make a specialty of hay shipments. We are organized with a working force, each member of which is thoroughly experienced in his respective department, which will enable us to serve shippers just as acceptably as any concern west of the Mississippi river. We propose to build for the future rather than for immediate returns, shall endeavor to conduct a strictly legitimate business in every respect, and we shall be glad to furnish any who are interested with frequent market reports."

Notes from the Farm.

A most pleasing sight at this time is to be seen in our experiment field where a crop of cow peas and soy beans are growing on plats from which a crop of wheat was harvested. After the wheat was hauled off, the ground was plowed and the beans and peas seeded July 9. On this date, (August 12) the plants stand 12 to 14 inches tall and seem to thrive despite the excessively hot weather. Those who realize the advantage gained by having the ground covered with a growing crop at this time of year, and especially a crop of such a nature as this, still making a good seed bed for wheat, will be able to appreciate the value of this arrangement of crops. The experiment has been under way a couple of years, and is planned for a series of years. The cow peas and soy beans are on alternate plats for comparison. The cow peas are drilled in rows 8 inches apart and receive no cultivation. The soy beans are drilled in rows 32 inches apart and are cultivated once or twice. The cow peas do well without cultivation but it was found by previous experiments that the soy beans would not. All these plats go into wheat again this fall. On some the pea and bean crop is harvested as hay and the others are plowed under as green manure. If the fall is a little dry the soy bean plats furnish the better seed bed. The hay harvested from the plats last fall yielded a ton and a quarter per acre, and in this was considerable partly matured grain. Soy bean are used on all our wheat ground now as a catch crop, and the seeding of something over twenty acres has just been finished. Last fall the yield of soy beans on the catch crop was 8½ bushels per acre.

The wheat experiments turned out very poorly this year. Rust, chinch bugs, and dry spells about finished what the winter had left. Still some of the results will be instructive. In our variety test it is shown that such varieties as the Turkey and Zimmerman can produce moderate yields under very adverse circumstances, while a large number of varieties, that produce good yields under ordinary circumstances, fail almost entirely under the same conditions. Included in this latter list are such varieties as Dawson's Golden Chaff, Pride of Genesee, Early Genesee Giant, and Early Red Clawson.

The oat crop is by far the best since '91. The yields are double to three times as much as the yields have been the last six years. In the variety test our best varieties run from 60 to 75 bushels per acre. Some of these are Pedigree Red Rust Proof, Golden Sheaf, Belgian, Brown Winter and, Red Georgia. The quality is but a trifle better than the standard, but more than this is not often obtained in Kansas oats. Last spring a number of new varieties was obtained from the northern states and Canada and the seed tested 34 to 40 pounds per bushel but the crop raised from them is of no better quality than the Kansas grown varieties. We attribute this year's large crop mainly to the non-appearance of rust—at least rust did not appear until most of the oats were past damaging. Short dry spells damaged the crop slightly in places. As usual the seedings made the first week in March, produced about twice as much at those made the first week in April. With our first trial, Ceres-pulver does not prove to be quite so efficient a fungicide for oat smut as the hot water treatment. We wish to make a correction here of a statement we made in former notes as to the introducer of potassium sulphide, (of which Ceres-pulver is mainly composed), as a smut fungicide. We made the statement that Jensen introduced it, but this should be modified when we consider the composition of the article. Kellerman and Swingle experimented with and used potassium sulphide as a smut fungicide here at this college as long ago as 1889 and with success, and Jensen in his writings gives them the credit of introducing it for such a purpose. Jensen devised the very simple method of applying his powder to the seed grain.

The past few weeks of hot, dry weather has been very severe on many crops. Corn will be cut short one-third and the cool nights of the past week were all that saved a total failure. The meadows have suffered very much. A second cutting of any amount is very doubtful. The first cutting yielded 1¼ tons per acre. This compared, with the three cuttings of alfalfa already secured, that average nearly a ton and a quarter to the cutting, demonstrates somewhat the value of alfalfa as compared with our meadow grasses. F. C. BURTIS.

Death of Harrison P. Hood.

Prof. O. P. Hood, in company with his family, left on July 26, for his old home in Indianapolis, called away by the illness of his father. The *Indianapolis Journal* for August 6 contained the following:

After a painful illness of nearly two years, Harrison P. Hood died of paralysis yesterday afternoon at his residence, No. 325 East Maryland street. He was born in Salem, Mass., Feb. 27, 1841. He was a wood worker in Lowell, Mass., when the war broke out, but early enlisted in the Twenty-sixth Massachusetts and served in the Department of the Gulf. He married soon after the war, came to this city in 1869 and started the first shop for the making of models and experimental machinery in the city. He gradually worked into the business of patent soliciting. He was the inventor of the earliest cash register. For years, until his health broke down, he was an active member of the George H. Thomas Post, filling every important office except commander, which he declined. He was for years a faithful member of Plymouth Church, and was regarded by those who knew him best as a model man, modest, unassuming but faithful in the discharge of every duty. A widow, three sons and a daughter survive him. The eldest son, Ozni P., is the professor of mechanics in the Kansas State Agricultural College; his second son, Arthur M., assumed his father's business two years ago; the third son, Ernest K., is designing engineer of the Reeves Pulley Company, of Columbus. The daughter, Mable, has graduated from the Kindergarten Normal, and has been assigned to one of the city schools.

Prof. Hood has the sympathy of his many friends in Manhattan in the loss he has experienced.

MAP OF THE UNITED STATES.—A large, handsome Map of the United States, mounted and suitable for office or house use, is issued by the Burlington Route. Copies will be mailed to any address on receipt of fifteen cents in postage by L. W. WAKLEY, General Passenger Agent, Burlington Route, St. Louis, Mo.

THE CASE OF PROFESSOR JAMES ALLEN SMITH.

WE cull the following from certain letters written by Prof. Smith to us:

As a result of the radical policy which the trustees of this [Marietta] college have recently adopted, I am under the necessity of looking for another position. . . . The board of trustees at a recent meeting abolished my department, and assigned as a reason the necessity for retrenchment, tho the real reason is understood here. The board is intensely republican, and is much opposed to my anti-monopoly, anti-gold-standard views. . . . The board . . . abolished my department, as the easiest way of putting me out. At the same time they dropped several others, all of whom happen to have voted against McKinley last fall. They put their action on the ground of necessity for retrenchment, but I know that in my case, at least, the reason which really actuated them was the desire to suppress what they considered dangerous economic doctrines.

Marietta College of recent years has become almost a family affair, [naming a high government official] his father, father-in-law, uncle, and several other relatives of the family, are on the board of trustees, and control the school. They are partisan republicans, are interested in gas and other monopolies, and would like to see the teaching in this college subordinated to their own private interests. It is probable that I should have found no difficulty in remaining here had I been willing to defend protection, unregulated private ownership of monopolies, and the gold standard. It was a case of intellectual prostitution or giving up my position. I preferred the latter. . . . What the students think of my work is indicated by the resolutions I enclose. . . . The students almost without exception, and regardless of their political affiliations, condemn the action of the board, as do the majority of the people in Marietta.

This was one of the most conservative schools in the country when I came here. Their economic atmosphere was of the extreme *laissez faire* type, and republicanism the accepted political creed. But the progressive movement could be no longer excluded. Last fall several instructors in the college voted for Bryan, and the majority, if not all, of the students have been more or less infected with what the board consider dangerous anti-monopoly, anti-gold-standard views. . . . Men of my views are being forced out of the conservative institutions. All the men removed here recently voted against McKinley last fall, and were opponents of monopoly. Consequently several of the best men in the school are now looking for positions elsewhere, and all others who harbor liberal economic views are anxious to get out. . . . I am very anxious to get a position in some school where the monopolistic classes are not in the ascendancy. . . . It may seem strange to you that I succeeded in getting into a school like this. It was due to the then president, Dr. Simpson who, tho a republican, did not believe in suppressing intellectual freedom, and who was compelled to resign last year because he was too progressive for the trustees.

Following is the petition of the students seeking to have Prof. Smith retained:

MARIETTA COLLEGE, MARIETTA, OHIO, March 26, 1897.

At a mass meeting held in chapel, the following preamble and resolution were unanimously endorsed:

To the Board of Trustees of Marietta College:
WHEREAS, At a recent meeting of the executive committee of the trustees of Marietta College the committee has deemed it necessary, on the grounds of reducing expenses, to dispense with the services of several professors, and

WHEREAS, Among said professors we notice the name of Prof. J. Allen Smith, and

WHEREAS, We believe that the loss of Prof. Smith will work incalculable damage to the students of Marietta College, and

WHEREAS, A comparison of the number of hours elected under Prof. Smith with the number chosen in the other departments will show where expenses might be reduced with less serious consequence to the student body, and

WHEREAS, A large number of students have expressed a determination not to return to Marietta College if Prof. Smith's department is abandoned, therefore

Resolved, That we, the undersigned students of Marietta College, do respectfully petition the board of trustees to reconsider their decision in this matter.

[The above is a copy of the original petition signed by all the college students with two or three exceptions.]

Next we give Professor Smith's outline of lectures on political economy:

(Preceded by Mill's Principles of Political Economy.)
I. English industrial history. (1) The manorial period. (2) The guild period. (3) Rise of the modern industrial system.
II. Analysis of modern industrial society.

A. The individualistic theory of society.
(1) The economic motive. (a) Its relation to human wants. (b) Classification of wants. (c) Increasing importance of the business motive. (d) Dependence of political on economic power. (2) Competition. (a) In the lower organic world. (b) Social institutions in relation to the survival of the fittest. (c) Evils of unrestricted competition. (d) Substitution of group for individual competition. (e) Competition and economic distribution. (f) Competitive and non-competitive (socialistic) society compared. (g) The inadequacy of the *laissez faire* theory.

B. Industries superior to competition.
(1) Natural monopolies. (a) Land—development of private property in, and its effect on distribution. (b) Railways: (1) Sketch of railway development. (2) Evils of discrimination. (3) Attempts to secure public control. (c) Street railways. (d) Telegraph. (f) Telephone. (g) Gas supply. (h) Water supply. (i) Electric light, etc.

(2) Artificial monopolies. (a) Protective tariffs. (b) Privileged relations to natural monopolies. (c) Patents. (d) Trusts. (3) Methods and influence of monopolies.

(4) Relation of monopolies to great fortunes. (5) Relation of monopolies to industrial depression. (6) Relation of monopolies to the speculative spirit of modern industry.

(7) Public versus private ownership of monopolies. (8) Trades unions. (9) Summary of labor and monopoly legislation.

C. The medium of exchange.
(1) The origin of the money problem. (2) Transition from the concrete to the abstract conception of wealth. (3) Function of money in modern society. (a) Medium of exchange. (b) Standard of value. (c) Coordinating arrangements of modern society. (3) Conceptions of a standard of value: (a) Monometallic. (b) Bimetallic. (5) Monometallism. (6) Bimetallism. (7) Sketch of recent monetary legislation. (8) The tabular standard. (9) The multiple standard. (10) A national versus an international standard.

D. Panics and industrial depressions.
(1) The nature and cause of panics and their relations to industrial depressions. (2) History of industrial depressions. (3)

Analysis of an industrial depression. (4) The various theories of. (5) The waste of productive energy and moral deterioration which they entail. (6) Not an unavoidable evil.

Next we submit, by permission, letters from Dr. Washington Gladden:

COLUMBUS, O., May 13, 1897.

MY DEAR SIR:—Professor J. Allen Smith, of Marietta, has been suggested as professor of economics in the Kansas State Agricultural College. I know Prof. Smith well, and value him very highly. He is a man of fine scholarship, and the soundest and strongest character; a modern man in every sense, and a very successful teacher. I think that he is one of the most intelligent teachers of economics in the country. His removal from his present position is due, no doubt, to his liberal views on economic questions. Yet he has always been judicious and moderate in his utterances. He does not deserve the reputation of a radical, in any sense. I presume that he voted for Mr. Bryan, as I did not; but he holds no extravagant views on financial or sociological questions. Doubtless he is fully convinced of the need of checking, in some way, the monopolistic tendencies of the present day. I am sure that Prof. Smith would be able to do the kind of work you want done in Kansas. Yours truly,

WASHINGTON GLADDEN.

COLUMBUS, OHIO, May 29, 1897.

MY DEAR SIR:—I have already written to some one connected with your college what I know about Prof. Smith. As to his qualifications there can be no question. He is a thoroughly furnished economist, a good scholar, an original and vigorous thinker, with a strong grasp on the larger aspects of economics and sociology, and a most successful teacher. He is not in any sense a radical; he keeps his feet on the ground; but he is fully up to date, and going steadily forward. He is also a teacher of great ability. He commands the attention and interest of his classes. His courses have been more popular, I think, than those of any other professor in Marietta. I have been in Marietta quite a little since he has been there, and know about his work. I gave a short course of lectures there, on economic subjects, and was, of course, in close relations with him.

THERE IS NO QUESTION THAT HIS DISMISSAL WAS DUE TO HIS ANTI-MONOPOLY TEACHING. I had a long conversation with a leading trustee; and tho he gave other reasons for the action of his board—that the measure was dictated by financial considerations—it was easy to see that the reason was the character of Prof. Smith's teaching. The board is pretty largely composed of bankers and financial men, whose views are naturally very conservative. They are good men, but they do not quite discern the signs of the times. Let me say that I esteem Prof. Smith very highly, not only as a teacher, but as a gentleman. He seems to me a man of fine character and noble aims, a man whose personal relations with his fellow teachers and with students are likely to be stimulating and salutary. I do not believe a better man can be found for your work. Yours truly,

WASHINGTON GLADDEN.

OTHER LETTERS:

From a minister who prefers that his name be not used:

May 10, 1897.

HON. C. B. HOFFMAN,
DEAR SIR:—I write you in the interest of Prof. J. Allen Smith, professor of political economy in Marietta College. Possibly the very best recommendation that Prof. Smith has consists in the fact that his very able anti-monopolistic and anti-gold-standard teaching has secured him the ill will of the powers that be in Marietta College. In addition to this, the professor is a very able man, and one of the most conscientious that I have ever met. He has created an enthusiasm among the students . . . that no other professor has been able to create in his department. . . . I am sure you will make no mistake if you secure him to fill the department of political economy in your college. He is an able, fearless, and conscientious man. Sincerely yours,

From a university professor in another state:

May 19, 1897.

HON. C. B. HOFFMAN, Enterprise, Kansas.
DEAR SIR:—Dr. J. Allen Smith has informed me of his application for the chair of economics in the State Agricultural College of Kansas, and I wish to speak a few words in his behalf. He is most liberal in his views, and hates deception and everything that savors of it, as he does all that is opposed to truth. It is an open secret that his position in regard to the single gold standard for money is objectionable to the governing authorities of Marietta College, and no less are his teachings against the greed of corporations. I am sure these views will not militate against him in the great, liberal state of Kansas. . . . I have the honor to be, very respectfully and truly,

COLUMBIA, Mo., May 19, 1897.

HON. C. B. HOFFMAN,
DEAR SIR:—Having learned that Prof. J. Allen Smith is a candidate for a vacancy at Manhattan in economics, I feel called upon, as one who has known him intimately for some twenty years, to write you in his behalf. While not sharing Dr. Smith's views on socialistic questions or on free silver, I none the less recognize his prominence as an authority on these subjects. In fact, since Professor . . . felt compelled to abandon his former position on such questions, I have seen clearly that Dr. Smith was their most able champion in America. [Here follow certain strong statements relative to Dr. Smith's general qualifications.] . . . On the subject of money, Dr. Smith is already conspicuous, his articles being known both sides of the Atlantic. I look for him to achieve greater reputation in this line. As for his well-known opposition to monopolies, in which he is entirely fearless, he meets the approval of all just minded persons. R. WEEKS.

Professor of Romance Languages, University of Missouri.

COLUMBIA, Mo., May 24, 1897.

HON. C. B. HOFFMAN, Enterprise, Kansas.
DEAR SIR:—It gives me great pleasure to commend earnestly to you Dr. J. Allen Smith, who, I learn, is a candidate for the chair of economics at the State Agricultural College. I knew Dr. Smith well while he was at the University of Michigan, and I was deeply impressed by his fearless love of truth, ripe scholarship, and his power of presenting clearly his ideas. In finance I deem Dr. Smith especially strong. In this, his chosen field, I think he has no peer in this country.

Sincerely yours,

FRANCIS P. DANIELS,
Of Department of Latin, University of Missouri.

CINCINNATI, O., May 31, 1897.

HON. C. B. HOFFMAN, Regent Kansas State Agricultural College, Manhattan, Kansas.

DEAR SIR: I learn that Prof. J. Allen Smith, professor of economics and sociology in Marietta College, Ohio, has applied for the professorship of economics in your institution. You are to be congratulated if you can secure his services, for I consider him one of the ablest men in that department, and one of the most successful teachers I have met during the past four years. While president of Marietta College I selected him for that position after very careful investigation, and upon the recommendation of Dr. Herbert Adams of the University of Michigan, and other eminent political scientists. He has more than fulfilled my expectations. He is an original thinker, is splendidly equipped so far as his attainments are concerned, and is very attractive in his personality. With one exception he is the most popular teacher that Marietta College has had for many years. He arouses enthusiasm in his department, and knows how to attract young men to himself, and to make them interested in his important work. HE HAS BEEN VERY MUCH HAMPERED AT MARIETTA BECAUSE OF NARROW, CONSERVATIVE POLITICAL VIEWS WHICH ARE ENTERTAINED BY MANY OF THE TRUSTEES, WHO ARE OLD MEN, AND CAN SEE NOTHING GOOD IN ANYTHING BUT REPUBLICAN DOCTRINE. Although I myself am and always have been a Republican, I admire him for his independence, and the ability and thoroughness, as well as justness, of his teachings. I sincerely hope you will carefully consider his application, and I will congratulate both him and the institution should you select him as one of your teachers. He is in every way a modern, up-to-date man, and thoroughly acquainted with his work on the practical as well as theoretical side. I believe with Dr. Herbert Adams, who prophesies that he will be before many years one of the most widely known men in economic work.

Wishing you great prosperity in your institution, I remain,

Very sincerely yours,

JOHN W. SIMPSON,
Late President Marietta College.

It will be remembered that the authorities at Marietta dismissed Prof. Smith on the ground of lack of

means necessary for maintaining his and other new departments. Prof. Smith says:

I enclose a clipping from this evening's Register. [Letter dated May 22, 1897.] The proprietor of the Register is Mr. Alderman, one of the trustees of Marietta College, and the article is doubtless an attempt on the part of the board to defend their action. There are several ministers in Marietta who hold liberal economic views, and this explains the reference to ministers. The statements in this article do not agree very well with the board's assurance conveyed to me in the letter of dismissal that their action was taken "because of necessity for retrenchment, and not on account of any dissatisfaction" with my teaching, nor with their previously published statements to the same effect. It has also been admitted within the last two or three days that they do not expect to do away with the department of economics and sociology, but to get a man whose views they approve of to teach it.

Following is the editorial referred to:

NO PLACE FOR PESSIMISM.

There is something wrong with the intellectual assimilation of the man, be he minister, teacher, or layman, who asserts that the courts are corrupt, that legislation in the interest of the people can be bought off, that public servants are dishonest, the press venal, and the times so degenerate that no man can succeed by honest methods. And yet we hear such sentiments from those who would be considered authority. No one familiar with practical affairs can indulge in such pessimism. Good comes to no one from the doctrines of discontent. There is no platform or pulpit where it should be encouraged or where it will succeed.

Men are not worse than formerly, but better. Society is not more debased, but is uplifted. Conditions are not more unequal among men, but are more equal. Commercial honesty is not on the decline, but has been vastly elevated. The lot of the toiler, hard as it is, is not worse, but better, and at no day or age of the world were frugality, industry, and intelligent effort so sure to win success for their possessor as in this. He who would instill into the minds of the youth the doctrine of distrust and discontent is an enemy to public good. Such teachings may be expected of the young man who anticipates failure, or by the elder who, having entered into the fight, has not succeeded. But it is the doctrine of hope and confidence that gives strength to the faltering and courage to beginners, AND HE WHO CANNOT ADVOCATE THIS IS OUT OF JOINT WITH THE TIMES, AND SHOULD SEEK THE CLOISTER OR THE SOLITUDE OF BANISHMENT.—The Daily Register (R. Alderman & Sons, Proprietors), Marietta, Ohio, May 22, 1897.

Following are clippings from the Marietta College Olio, "issued monthly during the college year by Alpha Kappa and Psi Gamma societies," May, 1897:

JUNIOR EXHIBITION.

The annual exhibition of the junior class of the Psi Gamma and Alpha Kappa literary societies was given on Monday evening, April 26, at the First Congregational church. ** The majority of the orations dealt with the questions of the day, questions that are being presented to the people and that must be solved. That students should be aroused to the significance of these questions, and should seek to put them plainly before a cultured audience, can only reflect credit upon them and upon the institution which they represent. Criticism which deplores the fact that questions which affect the welfare of every citizen in the land should be considered plainly by students, whose mission it should be to seek the truth and make it known, rests upon ignorance and a false conception of duty, and is unjust.

Prof. Smith has been giving a series of most interesting lectures on the monopoly question to the senior and junior classes.

A HIGH RECOMMENDATION.

I have heard a great deal recently of Professor Smith, of your college. He seems to be a very widely known man, and of growing reputation. A number of prominent men in different parts of the country have mentioned him to me when discussing the money question, and I find him quoted as a man of clear views and unusually keen intellect. Mr. Eben Alexander, the American minister to Greece, said to me in Athens, speaking of Marietta College, about which he seemed to be well informed: "I hear they have Professor Smith there. They are fortunate to have so able a man in their corps. He is a remarkable man and has a big grasp of the subject he is interested in. I am much interested in him, and think he is one of the coming men. His views on political economy are attracting much attention among thinkers, and he is considered a sound man." Mr. Alexander was professor of Greek for many years in the University of North Carolina, and was accredited as Minister to Greece on account of his learning.—James Creelman.

EDITORIAL.

In our last issue we made the statement that we considered that the aim of a college paper should be to reflect the sentiments of the student body of the college. To carry out this policy, we consider that it is our duty to express the sentiments of the students in regard to the recent action of the trustees in dispensing with the services of our professor of political economy and sociology, Mr. J. Allen Smith. That this action is deeply deplored by almost every student of the college is shown by the petition (printed with its answer in the last Olio) which was addressed to the trustees by the students and almost unanimously signed by them. We realize the financial embarrassment in which the college, as a result of conditions over which it has no control, finds itself. But the trustees' answer, together with their recent actions, is considered by the students inconsistent with the reason assigned for their action, namely, lack of funds. To say in one breath that the teaching force is being reduced for the purpose of cutting down expenses, and in the next to say that work in all departments will be thoroughly provided for, seems slightly illogical. How Prof. Smith's work can be provided for without hiring some one to take his place is very difficult to see, for it is well known that no other professor in the college is able to take charge of this department. If, in order to "provide thoroughly for work in all departments," another professor is chosen to fill Prof. Smith's place, it is difficult to see how expenses can be reduced.

Mr. Smith has a national reputation as a political economist, is a teacher of unusual ability, a man who to a very rare degree inspires his students with a love of truth, and whose department is most popular with the students. That such a man should be first to fall on account of "lack of funds" seems to the students most deplorable, and gives rise to the current and widespread belief among the students and people of Marietta that Mr. Smith's removal is due to other causes than a desire to reduce expenses. INDEED, WE HAVE IT ON GOOD AUTHORITY THAT PROF. SMITH'S DOCTRINES, ECONOMIC AND OTHERWISE, ARE DISTASTEFUL TO THE TRUSTEES. If such is the case, they should say so honestly, for no one denies that they have the right to say what shall and shall not be taught in Marietta College, and that the students have the option of seeking another college home if the policy of the institution is distasteful to them. We repeat that if there is a truer reason than the one assigned for Prof. Smith's discharge, the trustees should take some action to counteract the general sentiment of the student body.

The life and efficiency of a college does not depend so much upon its location, the number and equipment of its buildings, or upon the students in attendance, as upon the heads of its various departments. *** A small college, unless richly endowed, is unable to employ an eminent specialist in each department, but if its influence is to be far reaching, if it is to receive the consideration of young people who have high ideals of life, if it is to fulfill the true mission of a college, it must give special attention to some department which has a practical bearing upon the life of the day.

It is commonly reported among the students that next year the departments of political economy and sociology are to be in charge of certain clergymen of the city. We sincerely hope that there is no possibility of such an arrangement, both for the sake of the men we so highly esteem and for the reputation of the college, to say nothing of the vigorous protest that would be expressed by every student in the college.

Mercy be to the trustees, if they have to be held responsible for all oaths uttered when it was announced that the ministers of the city would take charge of the sociology and political economy departments, next year!

"THE GENERAL SITUATION IS AGAINST YOU HERE."—President Harper to Professor Bemis.